

CALCULATIONS

NSE-SEE-HT-ZZ-TA-E-600003

Hotel –

Hotel building lighting calculations

DOCUMENT STATUS

Document Status				
C01	C01			
Date	25/6/25			
Author	S Hollingworth			
Checked	T Arena			
Verified	P Watson			

Hotel - Level 00

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	10.03.2025

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 take account of latest GAs / RCPs from Architect / Space Invaders. Also Emergency Lighting Review doc received from RF 07.02.2025.

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.

Table of contents

First Page 1
Table of contents 2
1 0.001 Lobby
1.1 Summary, 0.001 Lobby
1.1.1 Result overview, Reception 5
1.1.2 Result overview, Area (i) 7
1.1.3 Result overview, Area (ii) 9
1.1.4 Result overview, Area (iii) 11
1.2 Summary, 0.001 Lobby
1.2.1.1 Result overview (emergency lighting) 13
2 0.002 Front Office
2.1 Summary, 0.002 Front Office
2.1.1 Result overview, Evaluation area 1 15
3 0.003 WC Lobby Hotel
3.1 Summary, 0.003 WC Lobby Hotel
3.1.1 Result overview, Evaluation area 1 16
3.2 Summary, 0.003 WC Lobby Hotel
3.2.1.1 Result overview (emergency lighting) 17
4 0.004 BOH Corridor (i)
4.1 Summary, 0.004 BOH Corridor (i)
4.1.1 Result overview, Evaluation area 1 18
4.2 Summary, 0.004 BOH Corridor (i)
4.2.1.1 Result overview (emergency lighting) 19
5 0.004 BOH Corridor (ii)
5.1 Summary, 0.004 BOH Corridor (ii)
5.1.1 Result overview, Evaluation area 1 21
5.2 Summary, 0.004 BOH Corridor (ii)
5.2.1.1 Result overview (emergency lighting) 22
6 0.004 BOH Corridor (iii)
6.1 Summary, 0.004 BOH Corridor (iii)
6.1.1 Result overview, Evaluation area 1 23
6.2 Summary, 0.004 BOH Corridor (iii)
6.2.1.1 Result overview (emergency lighting) 24
7 0.008 Cleaning Supply Store
7.1 Summary, 0.008 Cleaning Supply Store
7.1.1 Result overview, Evaluation area 1 25
8 0.009 Partial Laundry
8.1 Summary, 0.009 Partial Laundry
8.1.1 Result overview, Evaluation area 1 26
8.2 Summary, 0.009 Partial Laundry
8.2.1.1 Result overview (emergency lighting) 27
9 0.010 House Keeping Uniform Issue
9.1 Summary, 0.010 House Keeping Uniform Issue
9.1.1 Result overview, Evaluation area 1 29
10 0.011 Open Plan Office
10.1 Summary, 0.011 Open Plan Office
10.1.1 Result overview, Evaluation area 1 30
10.2 Summary, 0.011 Open Plan Office
10.2.1.1 Result overview (emergency lighting) 31
11 0.013 Security Control & Surveillance Office

Table of contents

11.1 Summary, 0.013 Security Control & Surveillance Office
11.1.1 Result overview, Evaluation area 1 32
12 0.015 Bike Store
12.1 Summary, 0.015 Bike Store
12.1.1 Result overview, Evaluation area 1 33
12.2 Summary, 0.015 Bike Store
12.2.1. Result overview (emergency lighting) 34
13 0.016 HV Distribution
13.1 Summary, 0.016 HV Distribution
13.1.1 Result overview, Evaluation area 1 35
13.2 Summary, 0.016 HV Distribution
13.2.1. Result overview (emergency lighting) 36
14 0.019 Loading Dock
14.1 Summary, 0.019 Loading Dock
14.1.1 Result overview, Evaluation area 1 38
14.2 Summary, 0.019 Loading Dock
14.2.1. Result overview (emergency lighting) 39
15 0.022 Beverage Store
15.1 Summary, 0.022 Beverage Store
15.1.1 Result overview, Evaluation area 1 41
16 0.023 Mechancial Room
16.1 Summary, 0.023 Mechancial Room
16.1.1 Result overview, Evaluation area 1 42
16.2 Summary, 0.023 Mechancial Room
16.2.1. Result overview (emergency lighting) 43
17 0.027 Refuse
17.1 Summary, 0.027 Refuse
17.1.1 Result overview, Evaluation area 1 44
17.2 Summary, 0.027 Refuse
17.2.1. Result overview (emergency lighting) 45
18 0.028 VIP Lobby
18.1 Summary, 0.028 VIP Lobby
18.1.1 Result overview, Evaluation area 1 47
18.2 Summary, 0.028 VIP Lobby
18.2.1. Result overview (emergency lighting) 48
19 0.029 Corridor Core 4
19.1 Summary, 0.029 Corridor Core 4
19.1.1 Result overview, Evaluation area 1 50
19.2 Summary, 0.029 Corridor Core 4
19.2.1. Result overview (emergency lighting) 51
20 0.034 AWC
20.1 Summary, 0.034 AWC
20.1.1 Result overview, Evaluation area 1 53
20.2 Summary, 0.034 AWC
20.2.1. Result overview (emergency lighting) 54
21 0.038 BOH Corridor
21.1 Summary, 0.038 BOH Corridor
21.1.1 Result overview, Evaluation area 1 55
21.2 Summary, 0.038 BOH Corridor
21.2.1. Result overview (emergency lighting) 56

Table of contents

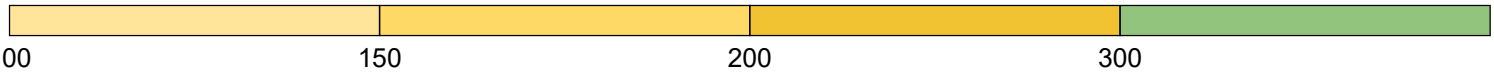
22 0.043 Luggage Store
22.1 Summary, 0.043 Luggage Store
22.1.1 Result overview, Evaluation area 1 57
23 C.002 WC South
23.1 Summary, C.002 WC South
23.1.1 Result overview, Evaluation area 1 58
23.2 Summary, C.002 WC South
23.2.1.1 Result overview (emergency lighting) 59
24 C.004 WC Lobby North
24.1 Summary, C.004 WC Lobby North
24.1.1 Result overview, Evaluation area 1 60
24.2 Summary, C.004 WC Lobby North
24.2.1.1 Result overview (emergency lighting) 61
25 C.005 WC North
25.1 Summary, C.005 WC North
25.1.1 Result overview, Evaluation area 1 62
25.2 Summary, C.005 WC North
25.2.1.1 Result overview (emergency lighting) 63
26 C.005 WC North (WC)
26.1 Summary, C.005 WC North (WC)
26.1.1 Result overview, Evaluation area 1 64
27 C.005 WC North (Large WC)
27.1 Summary, C.005 WC North (Large WC)
27.1.1 Result overview, Evaluation area 1 65
28 C.006 WC North
28.1 Summary, C.006 WC North
28.1.1 Result overview, Evaluation area 1 66
28.2 Summary, C.006 WC North
28.2.1.1 Result overview (emergency lighting) 67
29 C.013 Staff Changing and AWC
29.1 Summary, C.013 Staff Changing and AWC
29.1.1 Result overview, Evaluation area 1 68
29.2 Summary, C.013 Staff Changing and AWC
29.2.1.1 Result overview (emergency lighting) 69
30 C.024 WC South
30.1 Summary, C.024 WC South
30.1.1 Result overview, Evaluation area 1 70
30.2 Summary, C.024 WC South
30.2.1.1 Result overview (emergency lighting) 71
31 Corridor off Lobby
31.1 Summary, Corridor off Lobby
31.1.1 Result overview, Evaluation area 1 72
31.2 Summary, Corridor off Lobby
31.2.1.1 Result overview (emergency lighting) 73

1 0.001 Lobby

1.1 Summary, 0.001 Lobby

1.1.1 Result overview, Reception





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.80
Total luminous flux	62275 lm
Total power	652.9 W
Total power per area (227.95 m²)	2.86 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	316 lx
Minimum illuminance	E_{min}	140 lx
Maximum illuminance	E_{max}	379 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.26 (0.44)
Diversity U_d	E_{min}/E_{max}	1:2.71 (0.37)

Type No.\Make

		Thorn	
17	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1 0.001 Lobby

1.1 Summary, 0.001 Lobby

1.1.1 Result overview, Reception

Chiara Lighting Limited

13 11 x 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

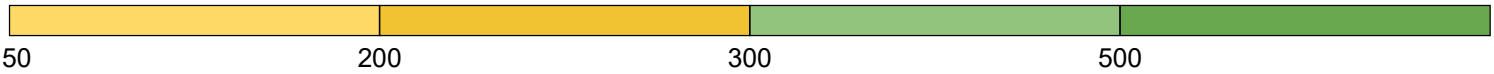
Light Forms Ltd

10 35 x Order No. : Type LBL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
Luminaire name : Type LBL01A - Nova Medium 62 [Medium] [Direct]
Equipment : 1 x 13.5 W / 1384 lm

1.1 Summary, 0.001 Lobby

1.1.2 Result overview, Area (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.80
Total luminous flux	62275 lm
Total power	652.9 W
Total power per area (227.95 m²)	2.86 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	345 lx
Minimum illuminance	E_{min}	153 lx
Maximum illuminance	E_{max}	505 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.26 (0.44)
Diversity U_d	E_{min}/E_{max}	1:3.3 (0.3)

Type No.\Make

		Thorn	
17	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, 0.001 Lobby

1.1.2 Result overview, Area (i)

Chiara Lighting Limited

13 11 x 

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

Light Forms Ltd

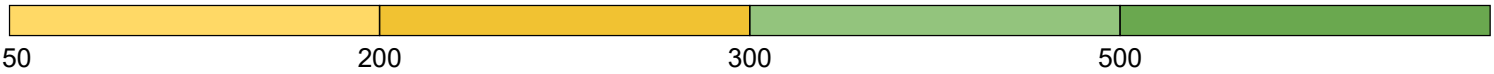
10 35 x 

Order No. : Type LBL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
Luminaire name : Type LBL01A - Nova Medium 62 [Medium] [Direct]
Equipment : 1 x 13.5 W / 1384 lm

1.1 Summary, 0.001 Lobby

1.1.3 Result overview, Area (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.80
Total luminous flux	62275 lm
Total power	652.9 W
Total power per area (227.95 m²)	2.86 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	354 lx
Minimum illuminance	E_{min}	175 lx
Maximum illuminance	E_{max}	501 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.03 (0.49)
Diversity U_d	E_{min}/E_{max}	1:2.86 (0.35)

Type No.\Make

		Thorn	
17	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, 0.001 Lobby

1.1.3 Result overview, Area (ii)

Chiara Lighting Limited

13 11 x 

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

Light Forms Ltd

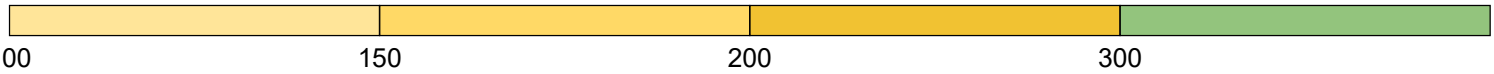
10 35 x 

Order No. : Type LBL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
Luminaire name : Type LBL01A - Nova Medium 62 [Medium] [Direct]
Equipment : 1 x 13.5 W / 1384 lm

1.1 Summary, 0.001 Lobby

1.1.4 Result overview, Area (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.75 m
Maintenance factor	0.80
Total luminous flux	62275 lm
Total power	652.9 W
Total power per area (227.95 m²)	2.86 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	250 lx
Minimum illuminance	E_{min}	134 lx
Maximum illuminance	E_{max}	332 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.87 (0.53)
Diversity U_d	E_{min}/E_{max}	1:2.49 (0.4)

Type No.\Make

		Thorn	
17	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, 0.001 Lobby

1.1.4 Result overview, Area (iii)

Chiara Lighting Limited

13 11 x 

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

Light Forms Ltd

10 35 x 

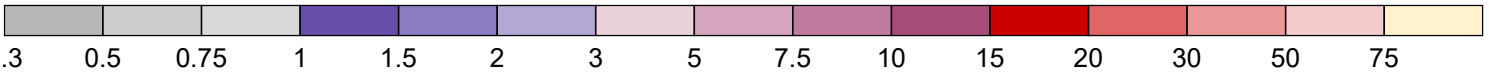
Order No. : Type LBL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
Luminaire name : Type LBL01A - Nova Medium 62 [Medium] [Direct]
Equipment : 1 x 13.5 W / 1384 lm

1 0.001 Lobby

1.2 Summary, 0.001 Lobby

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	: 600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 23.18m x 21.07m (42 x 38 pts), Height = 0.00m			
1	1.37 lx	39.67 lx	1: 28.92
	>= 0.5 lx		>= 1 : 40



Places to highlight

No.	Emin [lx]	Surface Emax [lx]
2 Call Point (i)		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	5.86 lx	7.17 lx
	>= 5 lx	



1 0.001 Lobby

1.2 Summary, 0.001 Lobby

1.2.1.1 Result overview (emergency lighting)

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

2	6.12 lx	7.48 lx
	>= 5 lx	



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

3	15.29 lx	19.87 lx
	>= 15 lx	



Type No.\Make

Thorn
17 2E x
Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

Tridonic
3 1E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

12 2E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Surface)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

14 2E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Surface)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

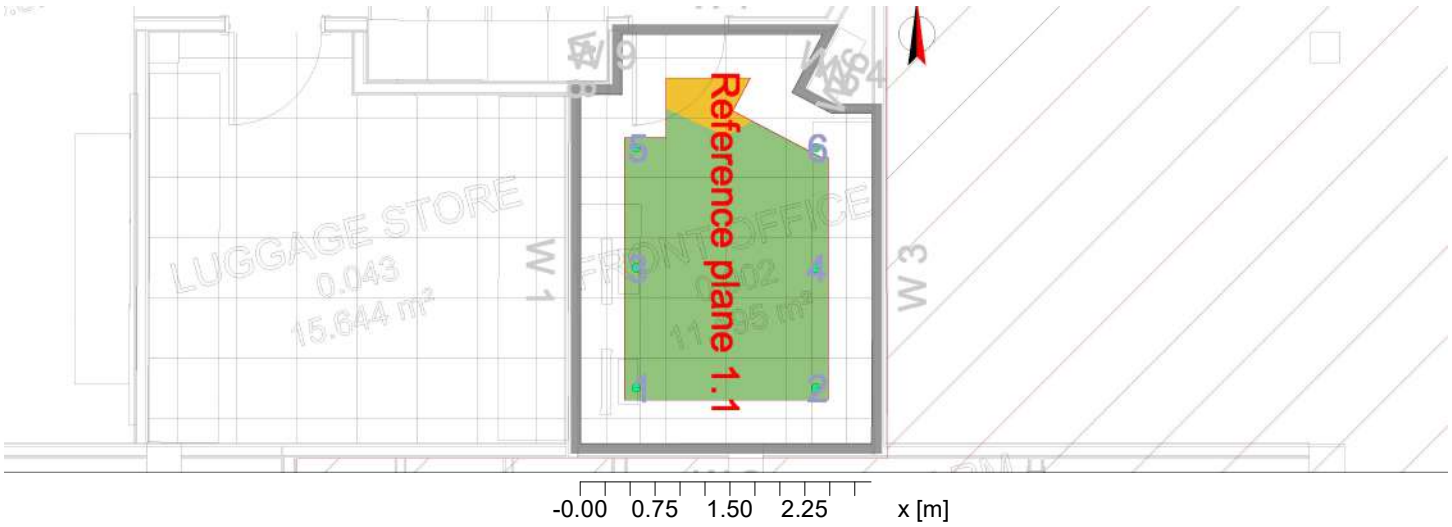
15 2E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

Jordan Reflectors
11 5E x
Order No. : 5264 -- Emergency Lighting --
Luminaire name : TR/NM3-Open-Area-500mA-5264
Equipment : 1 x LED 1.5 W / 184 lm (0%)
Emergency : 184 lm

2 0.002 Front Office

2.1 Summary, 0.002 Front Office

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Luminaire luminous flux	6296 lm
Total power	84.0 W
Total power per area (11.17 m²)	7.52 W/m² (1.88 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	399 lx
E_{min}	229 lx
$E_{min}/\bar{E}_m$ (U_o)	0.57
E_{min}/E_{max} (U_d)	0.48
Position	0.75 m

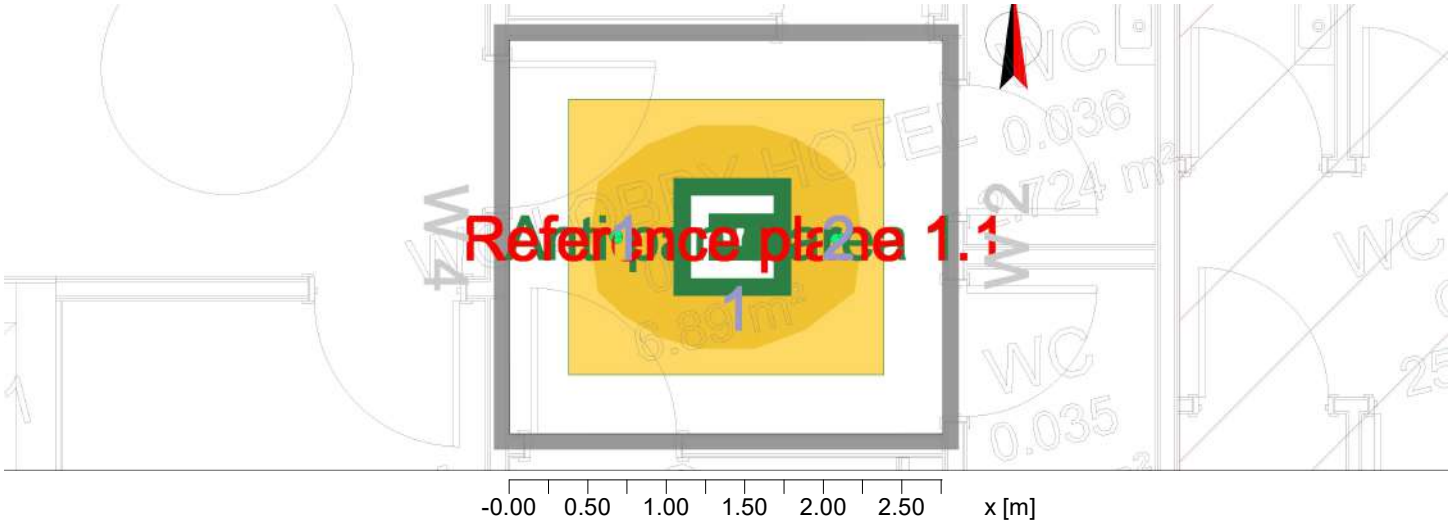
Type No.\Make

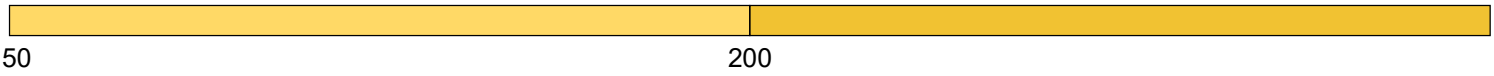
		Chiara Lighting Limited
8	6 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

3 0.003 WC Lobby Hotel

3.1 Summary, 0.003 WC Lobby Hotel

3.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.89 m²)	4.06 W/m² (1.94 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	210 lx
E_{min}	170 lx
$E_{min}/\bar{E}_m$ (U_o)	0.81
E_{min}/E_{max} (U_d)	0.66
Position	0.00 m (rot: 0°/0°)

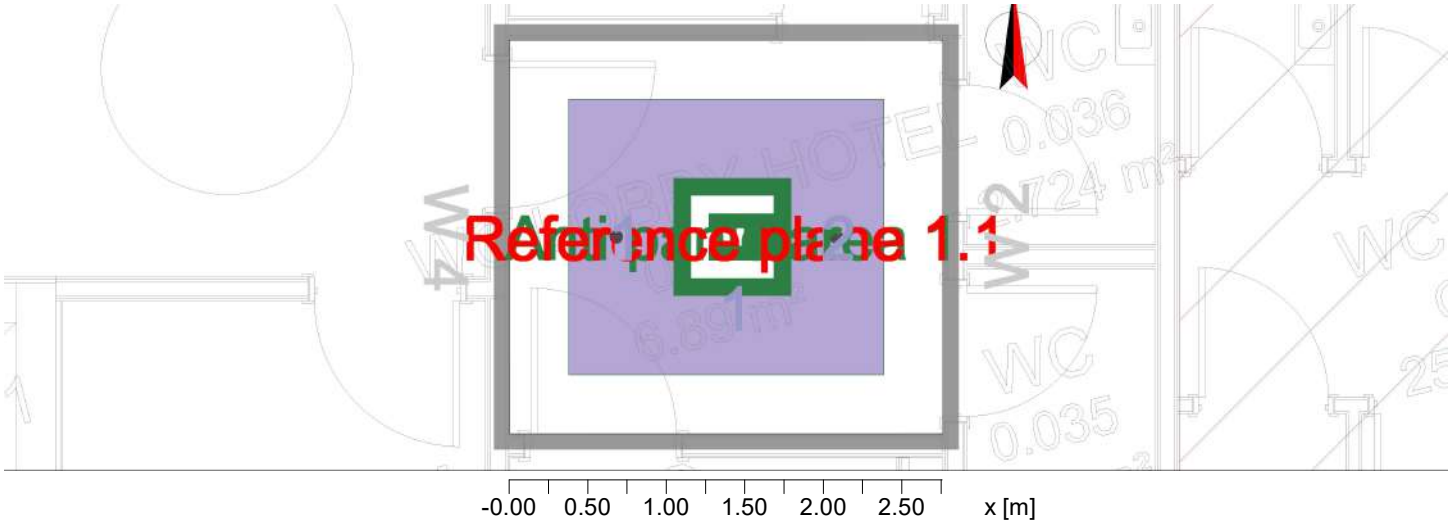
Type No.\Make

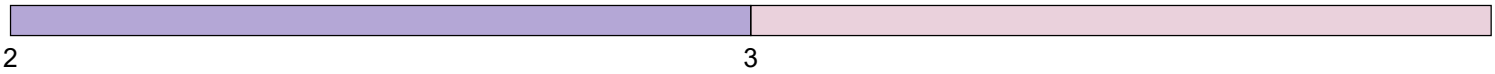
		Chiara Lighting Limited
8	2 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

3 0.003 WC Lobby Hotel

3.2 Summary, 0.003 WC Lobby Hotel

3.2.1.1 Result overview (emergency lighting)





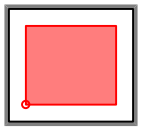
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.01m x 1.75m (6 x 5 pts), Height = 0.00m			
1	2.72 lx	2.98 lx	1: 1.10
	>= 0.5 lx		>= 1 : 40



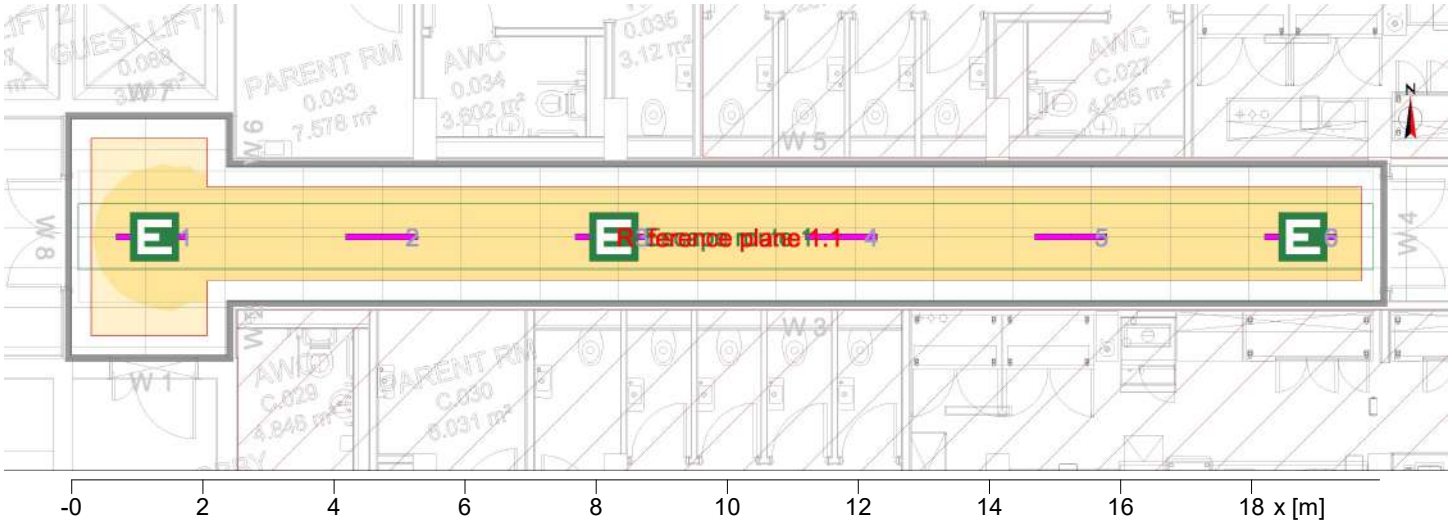
Type No.\Make

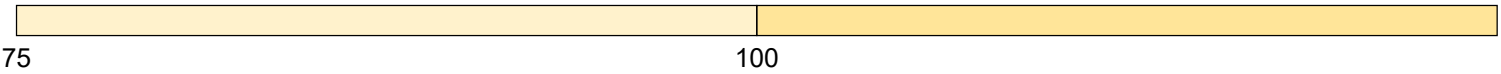
		Tridonic	
3	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

4 0.004 BOH Corridor (i)

4.1 Summary, 0.004 BOH Corridor (i)

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	17700 lm
Luminaire luminous flux	17695 lm
Total power	137.4 W
Total power per area (44.17 m²)	3.11 W/m² (2.42 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	129 lx
E_{min}	77 lx
$E_{min}/\bar{E}_m$ (U_o)	0.60
E_{min}/E_{max} (U_d)	0.53
Position	0.00 m (rot: 0°/0°)

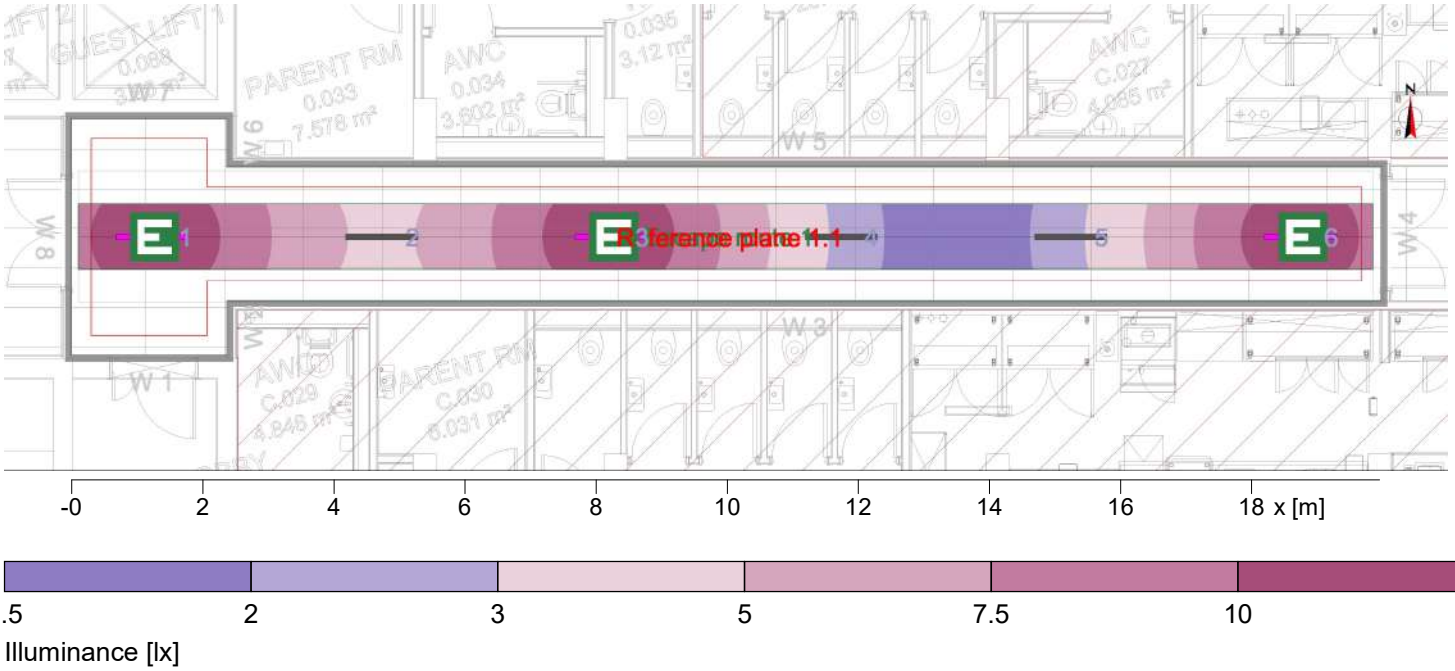
Type No.\Make

		Thorn	
1	6E x	Order No.	: 92902217
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

4 0.004 BOH Corridor (i)

4.2 Summary, 0.004 BOH Corridor (i)

4.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.43 m	
Maximum I	: 170 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 19.73m x 1m (99 x 9 pts), Height = 0.00m					
1	1.59 lx	11.81 lx	1: 7.43	1.56 lx	11.81 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	5.30 lx	6.36 lx
	>= 5 lx	



4 0.004 BOH Corridor (i)

4.2 Summary, 0.004 BOH Corridor (i)

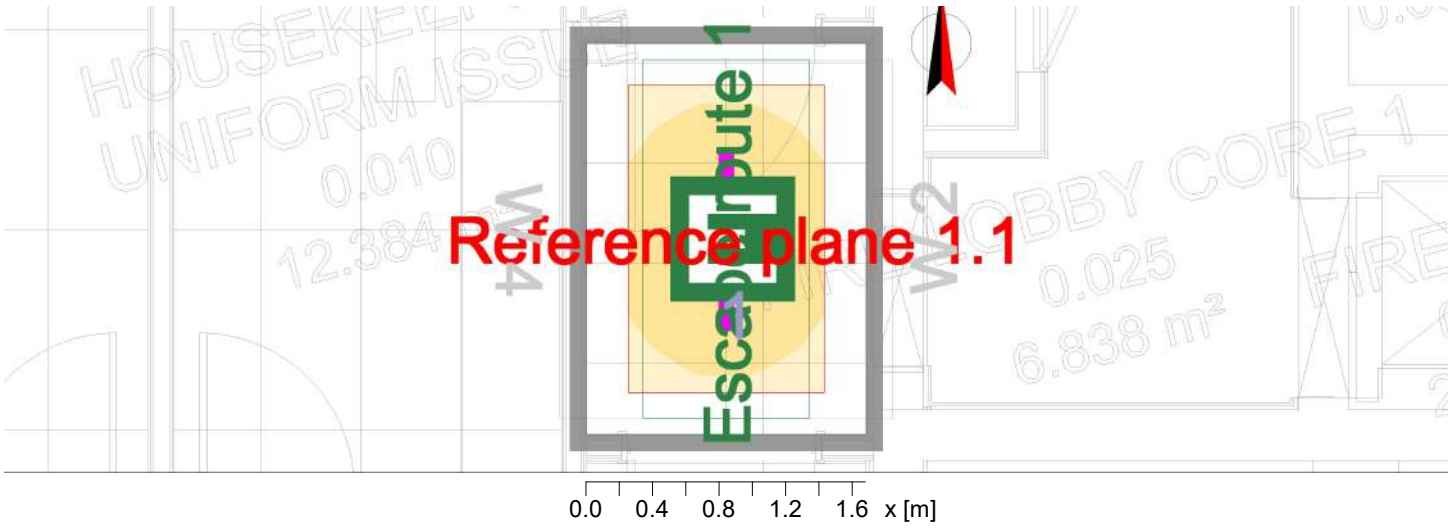
4.2.1.1 Result overview (emergency lighting)

Type	No.\Make	
		Thorn
1	3E x	Order No. : 92902217 -- Emergency Lighting --
		Luminaire name : AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment : 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency : 500 lm (16.9 %)

5 0.004 BOH Corridor (ii)

5.1 Summary, 0.004 BOH Corridor (ii)

5.1.1 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	2950 lm
Luminaire luminous flux	2949 lm
Total power	22.9 W
Total power per area (3.94 m²)	5.82 W/m² (5.54 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	105 lx
E_{min}	98 lx
$E_{min}/\bar{E}_m$ (U_o)	0.93
E_{min}/E_{max} (U_d)	0.87
Position	0.00 m

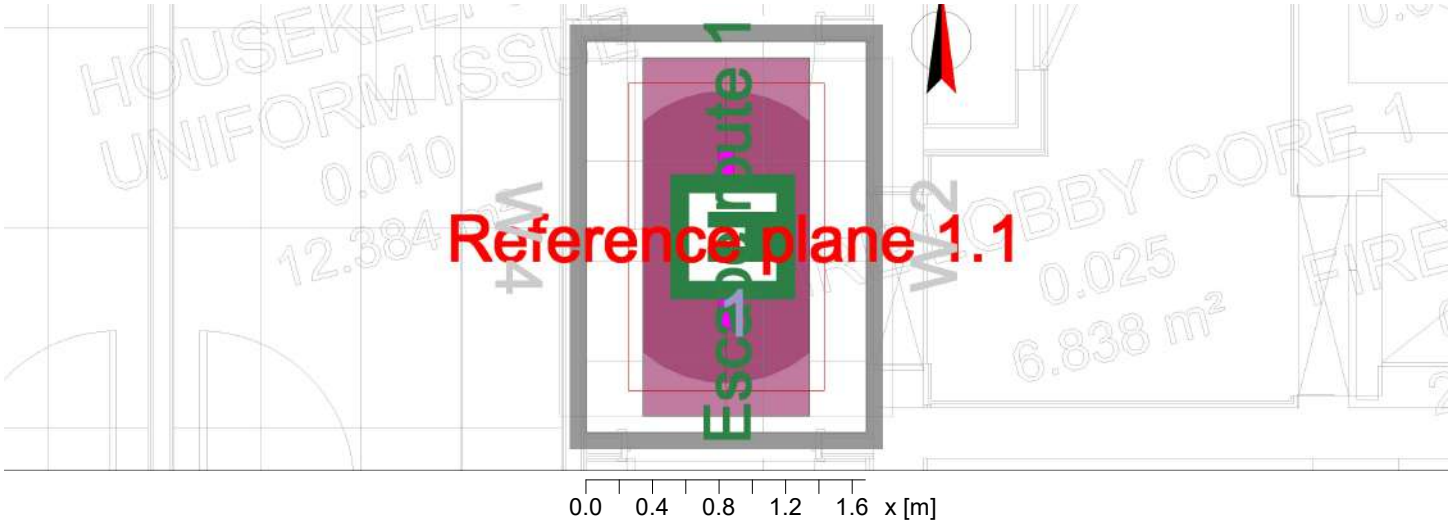
Type No.\Make

		Thorn	
1	1E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

5 0.004 BOH Corridor (ii)

5.2 Summary, 0.004 BOH Corridor (ii)

5.2.1.1 Result overview (emergency lighting)





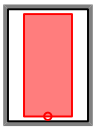
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.43 m	
Maximum I	: 170 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 2.14m x 1m (11 x 9 pts), Height = 0.00m					
1	9.38 lx	11.44 lx	1: 1.22	8.95 lx	11.44 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



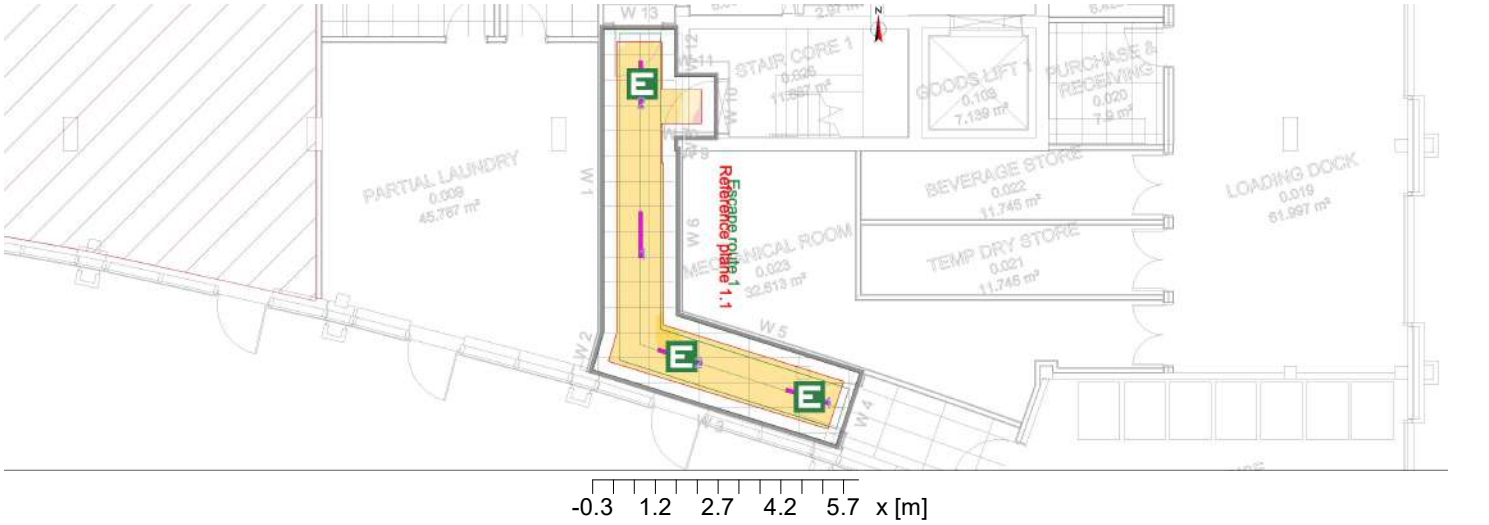
Type No.\Make

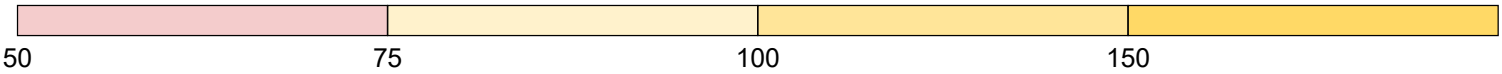
		Thorn	
1	1E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

6 0.004 BOH Corridor (iii)

6.1 Summary, 0.004 BOH Corridor (iii)

6.1.1 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	11800 lm
Luminaire luminous flux	11797 lm
Total power	91.6 W
Total power per area (23.66 m²)	3.87 W/m² (2.97 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	130 lx
E_{min}	67 lx
$E_{min}/\bar{E}_m$ (U_o)	0.52
E_{min}/E_{max} (U_d)	0.43
Position	0.00 m

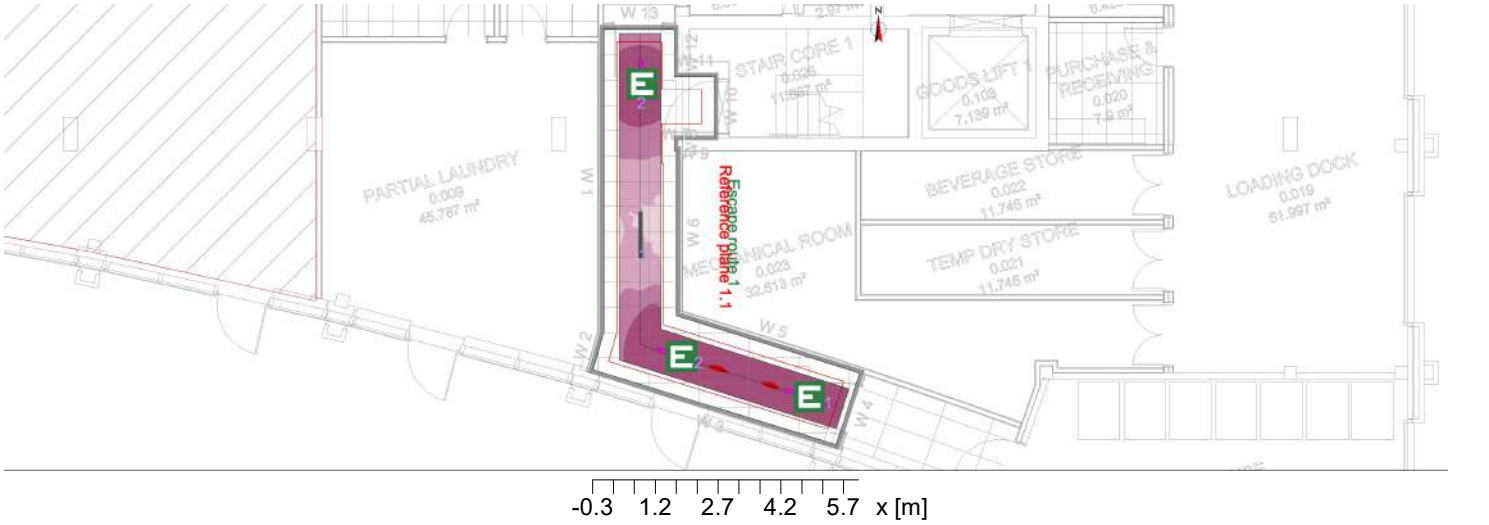
Type No.\Make

		Thorn	
1	4E x	Order No.	: 92902217
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

6 0.004 BOH Corridor (iii)

6.2 Summary, 0.004 BOH Corridor (iii)

6.2.1.1 Result overview (emergency lighting)

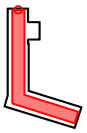


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.43 m	
Maximum I	: 170 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 12.48m x 1m (62 x 9 pts), Height = 0.00m					
1	4.88 lx	15.02 lx	1: 3.08	4.01 lx	15.02 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



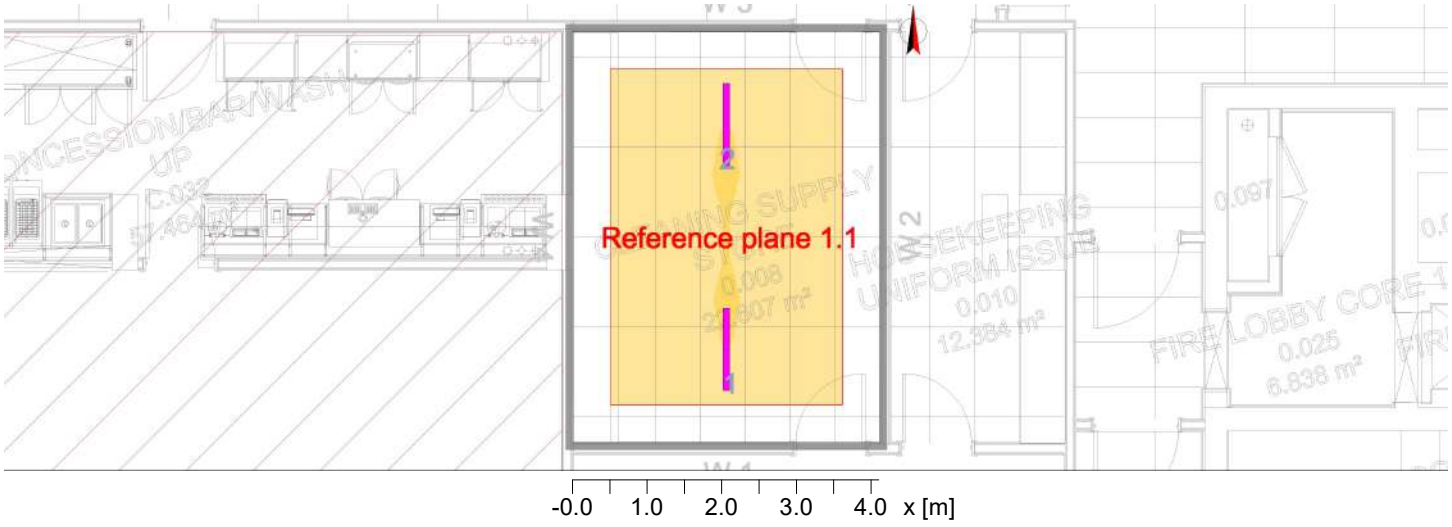
Type No.\Make

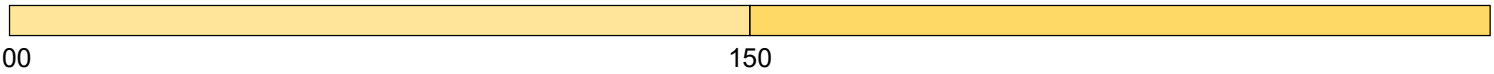
		Thorn	
1	3E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

7 0.008 Cleaning Supply Store

7.1 Summary, 0.008 Cleaning Supply Store

7.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	3.00 m
Maintenance factor	0.80
Total lamp luminous flux	5900 lm
Luminaire luminous flux	5898 lm
Total power	45.8 W
Total power per area (22.53 m²)	2.03 W/m² (1.55 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	132 lx
E_{min}	108 lx
$E_{min}/\bar{E}_m$ (U_o)	0.82
E_{min}/E_{max} (U_d)	0.71
Position	0.00 m (rot: 0°/0°)

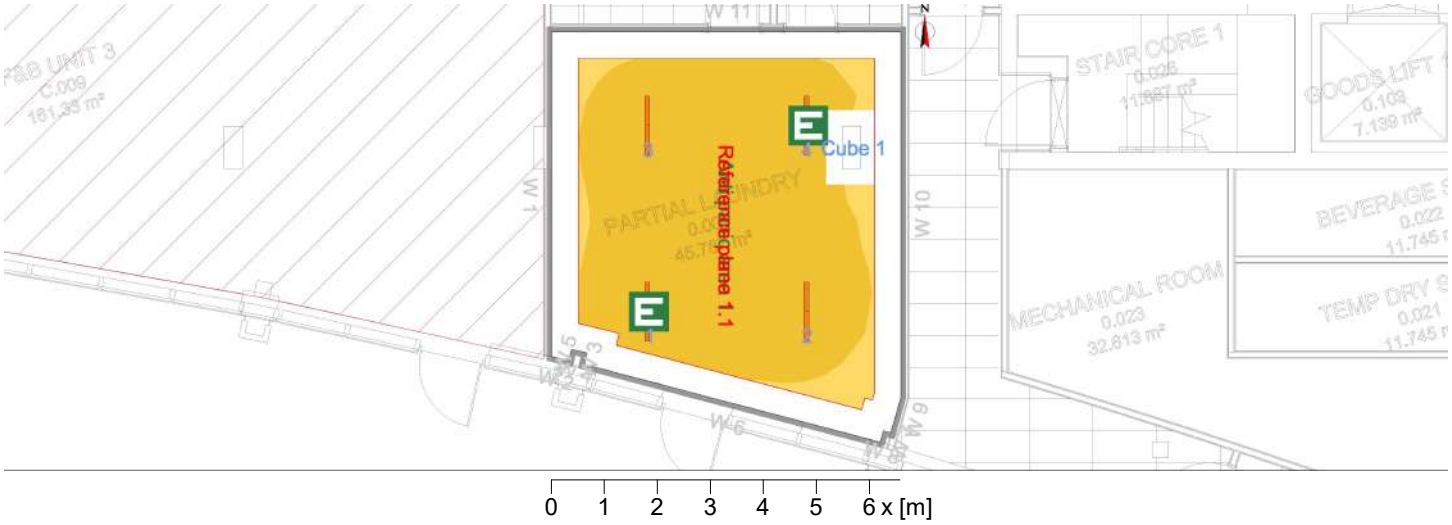
Type No.\Make

1	2 x	**Thorn**	
		Order No.	: 92902217
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

8 0.009 Partial Laundry

8.1 Summary, 0.009 Partial Laundry

8.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	3.30 m
Maintenance factor	0.80
Total lamp luminous flux	17600 lm
Luminaire luminous flux	17595 lm
Total power	133.6 W
Total power per area (45.51 m²)	2.94 W/m² (1.17 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	251 lx
E_{min}	153 lx
$E_{min}/\bar{E}_m$ (U_o)	0.61
E_{min}/E_{max} (U_d)	0.51
Position	0.75 m

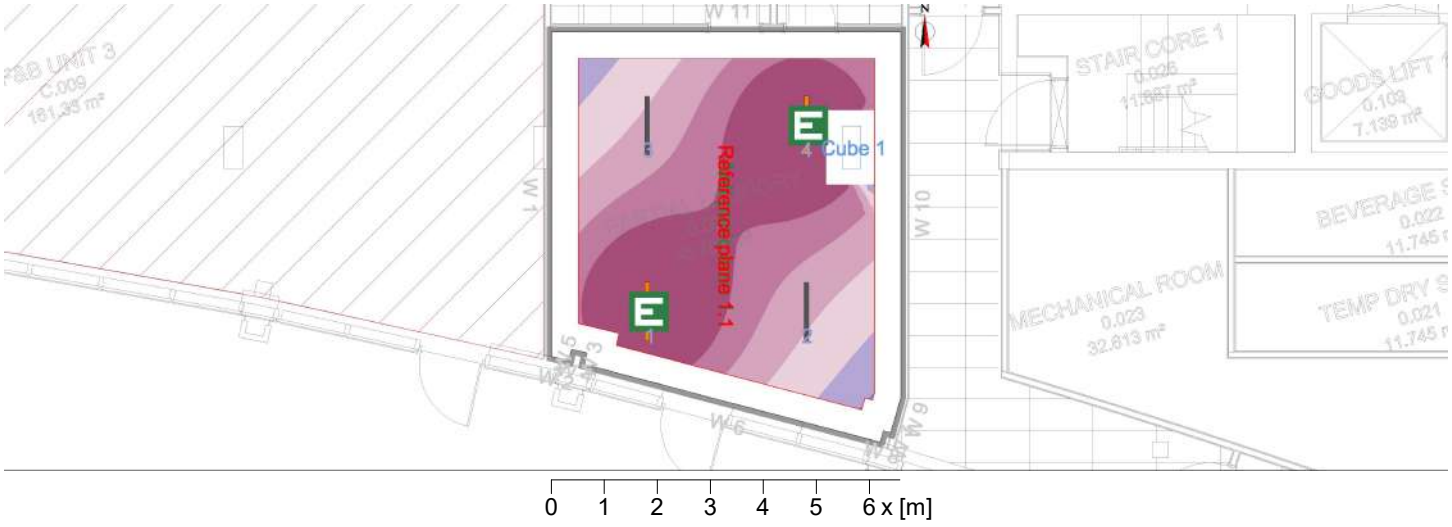
Type No.\Make

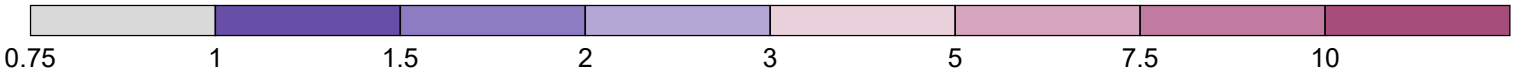
		Thorn	
4	4E x	Order No.	: 92901968
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

8 0.009 Partial Laundry

8.2 Summary, 0.009 Partial Laundry

8.2.1.1 Result overview (emergency lighting)



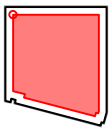


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.23 m	
Maximum I	: 170 cd	<= 1600 cd

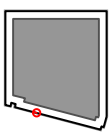
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 6.61m x 5.58m (9 x 7 pts), Height = 0.00m			
1	0.99 lx	14.05 lx	1: 14.21
	>= 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	8.55 lx		10.51 lx
	>= 5 lx		



8 0.009 Partial Laundry

8.2 Summary, 0.009 Partial Laundry

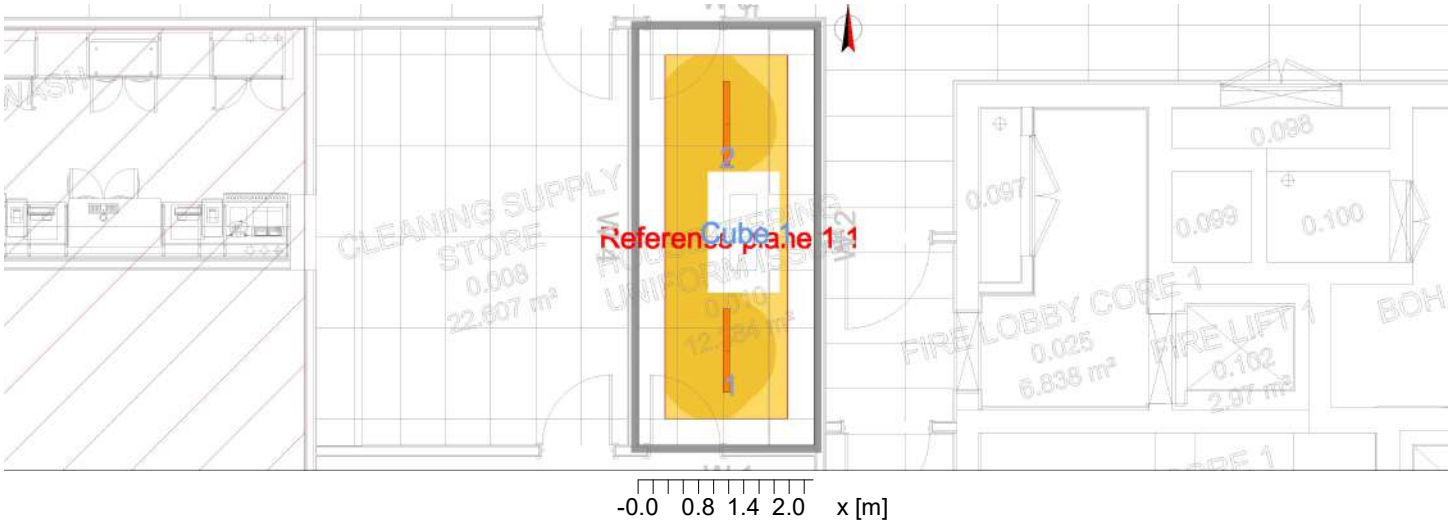
8.2.1.1 Result overview (emergency lighting)

Type	No.\Make	
		Thorn
4	2E x	Order No. : 92901968 -- Emergency Lighting --
		Luminaire name : AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment : 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency : 500 lm (11.4 %)

9 0.010 House Keeping Uniform Issue

9.1 Summary, 0.010 House Keeping Uniform Issue

9.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High 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	66.8 W
Total power per area (12.73 m²)	5.25 W/m² (2.39 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	219 lx
E_{min}	179 lx
$E_{min}/\bar{E}_m$ (U_o)	0.81
E_{min}/E_{max} (U_d)	0.71
Position	0.00 m (rot: 0°/0°)

Type No.\Make

		Thorn	
4	2 x	Order No.	: 92901968
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

10 0.011 Open Plan Office

10.1 Summary, 0.011 Open Plan Office

10.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	126483 lm
Luminaire luminous flux	125898 lm
Total power	1169.7 W
Total power per area (173.50 m²)	6.74 W/m² (1.38 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	488 lx
E_{min}	337 lx
$E_{min}/\bar{E}_m$ (U_o)	0.69
E_{min}/E_{max} (U_d)	0.55
Position	0.75 m (rot: 0°/0.02°)

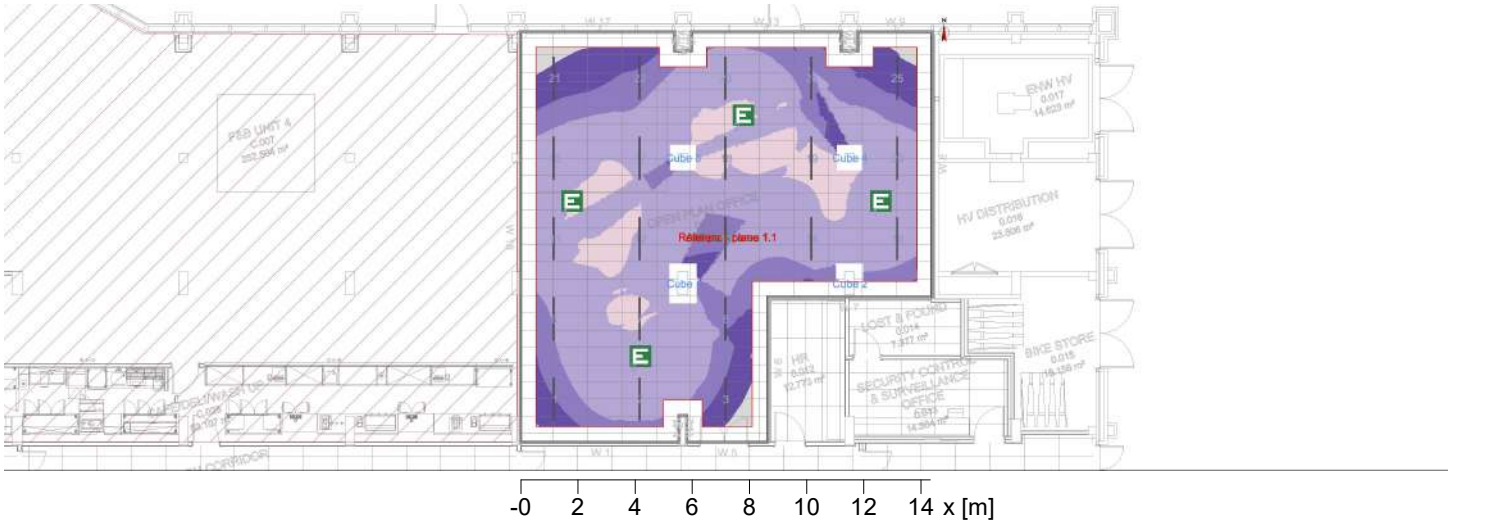
Type No.\Make

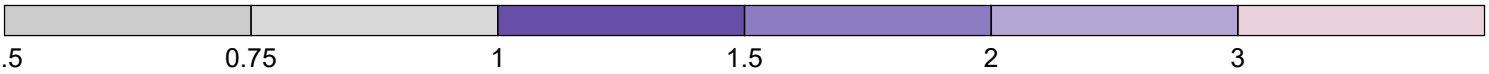
		Light Forms	
2	21 x	Order No.	: Type S2 - LP2.5ID-S-1500-LED-UGRLED-MED-4000-90-DALI-MPO-RAL9005
		Luminaire name	: Lightplane 2.5 [UGR<19-Low] [Direct-Indirect]
		Equipment	: 1 x 55.7 W / 6023 lm

10 0.011 Open Plan Office

10.2 Summary, 0.011 Open Plan Office

10.2.1.1 Result overview (emergency lighting)



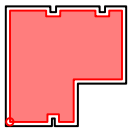


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.15 m	
Maximum I	: 53 cd	<= 1600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 13.32m x 13.24m (13 x 13 pts), Height = 0.00m			
1	0.67 lx	3.33 lx	1: 4.95
	>= 0.5 lx		>= 1 : 40



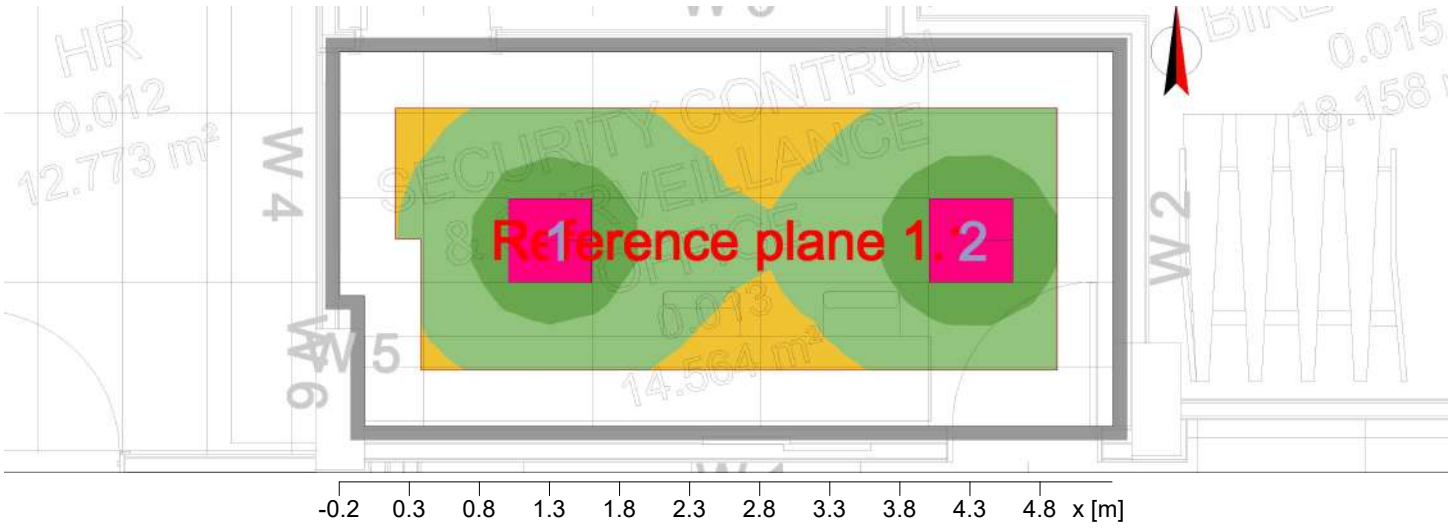
Type No.\Make

		Tridonic	
3	4E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

11 0.013 Security Control & Surveillance Office

11.1 Summary, 0.013 Security Control & Surveillance Office

11.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	2.40 m
Maintenance factor	0.80
Total lamp luminous flux	8200 lm
Luminaire luminous flux	8194 lm
Total power	67.2 W
Total power per area (14.52 m²)	4.63 W/m² (1.09 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	426 lx
E_{min}	240 lx
$E_{min}/\bar{E}_m$ (U_o)	0.56
E_{min}/E_{max} (U_d)	0.38
Position	0.75 m

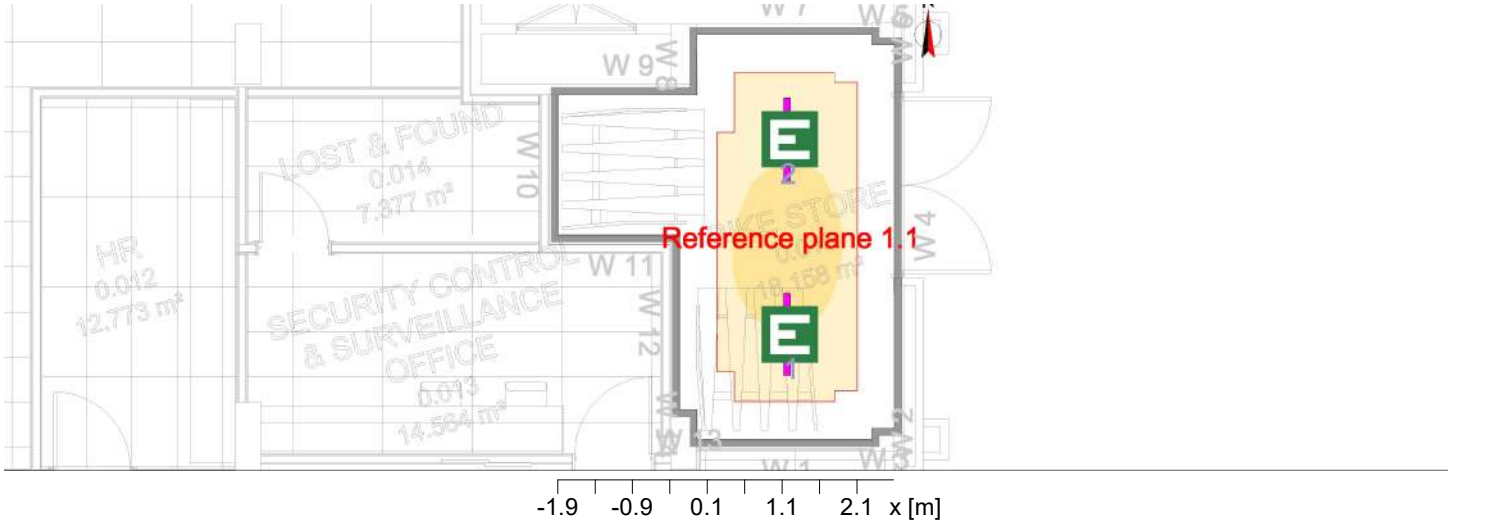
Type No.\Make

		Thorn	
6	2 x	Order No.	: 96634494
		Luminaire name	: BETA 3 4100-840 HFIX LRO Q600 [STD]
		Equipment	: 1 x BET3_MO-840 34 W / 4100 lm

12 0.015 Bike Store

12.1 Summary, 0.015 Bike Store

12.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	5900 lm
Luminaire luminous flux	5898 lm
Total power	45.8 W
Total power per area (18.13 m²)	2.53 W/m² (2.61 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	96.7 lx
E_{min}	81.5 lx
$E_{min}/\bar{E}_m$ (U_o)	0.84
E_{min}/E_{max} (U_d)	0.77
Position	0.00 m

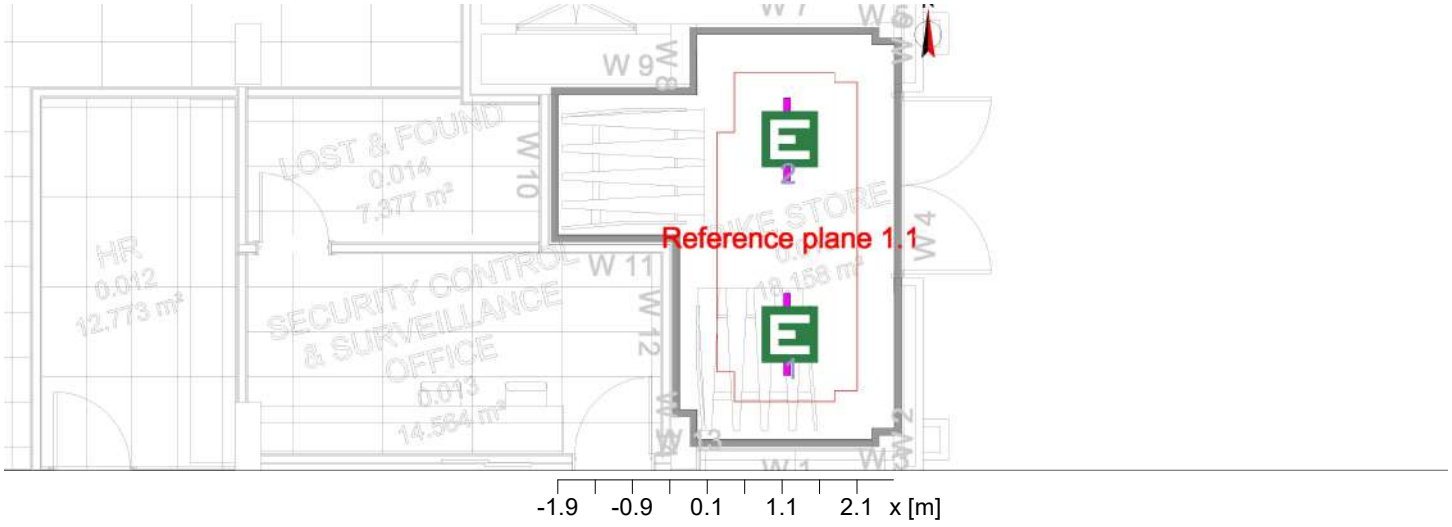
Type No.\Make

		Thorn	
1	2E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

12 0.015 Bike Store

12.2 Summary, 0.015 Bike Store

12.2.1.1 Result overview (emergency lighting)





5 7.5

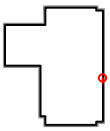
Illuminance [lx]

General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	: 4.43 m
Maximum I	: 170 cd

Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	5.24 lx >= 5 lx	5.95 lx



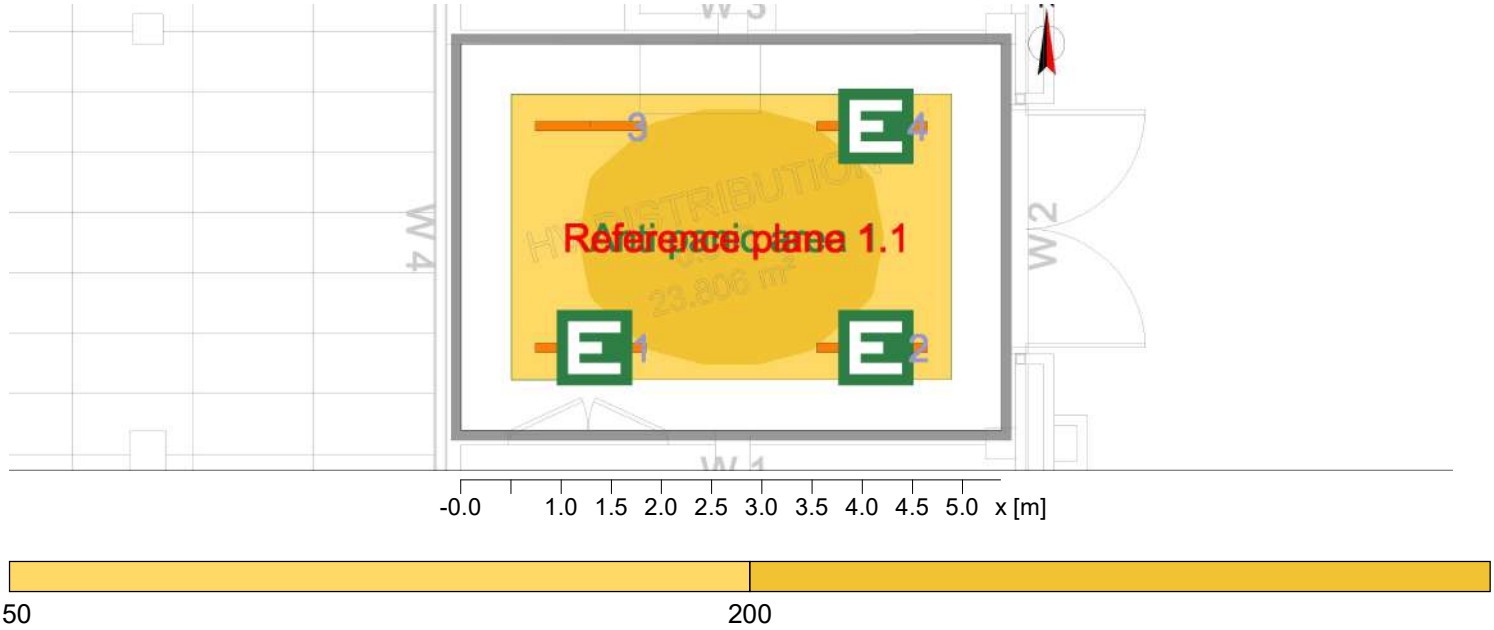
Type No.\Make

		Thorn	
1	2E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

13 0.016 HV Distribution

13.1 Summary, 0.016 HV Distribution

13.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	High 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	133.6 W
Total power per area (20.64 m²)	6.47 W/m² (3.24 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	200 lx
E_{min}	174 lx
$E_{min}/\bar{E}_m$ (U_o)	0.87
E_{min}/E_{max} (U_d)	0.79
Position	0.00 m (rot: 0°/0°)

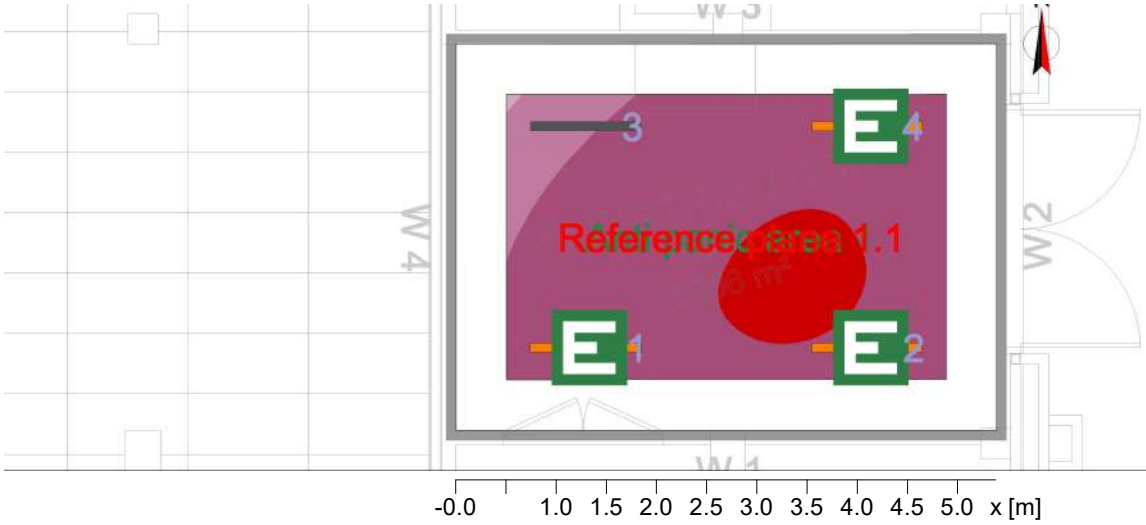
Type No.\Make

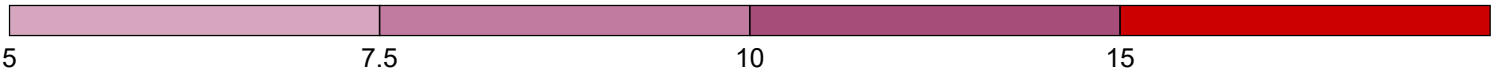
		Thorn	
4	4E x	Order No.	: 92901968
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

13 0.016 HV Distribution

13.2 Summary, 0.016 HV Distribution

13.2.1.1 Result overview (emergency lighting)





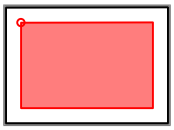
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

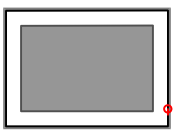
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 4.38m x 2.84m (8 x 5 pts), Height = 0.00m			
1	7.14 lx	15.48 lx	1: 2.17
	>= 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	6.38 lx	7.28 lx
	>= 5 lx	



13 0.016 HV Distribution

13.2 Summary, 0.016 HV Distribution

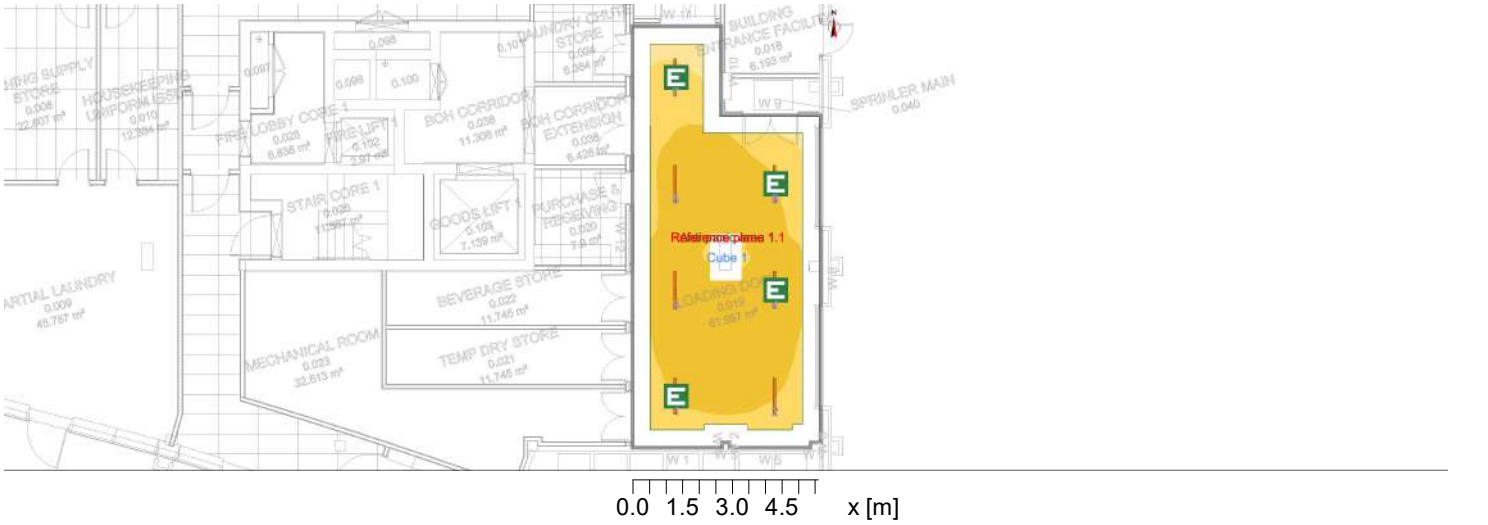
13.2.1.1 Result overview (emergency lighting)

Type	No.	\Make		
		Thorn		
4	3E x	Order No.	: 92901968	-- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]	
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm	
		Emergency	: 500 lm (11.4 %)	

14 0.019 Loading Dock

14.1 Summary, 0.019 Loading Dock

14.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	30800 lm
Luminaire luminous flux	30791 lm
Total power	233.8 W
Total power per area (62.37 m²)	3.75 W/m² (1.79 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	209 lx
E_{min}	132 lx
$E_{min}/\bar{E}_m$ (U_o)	0.63
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m (rot: 0°/0°)

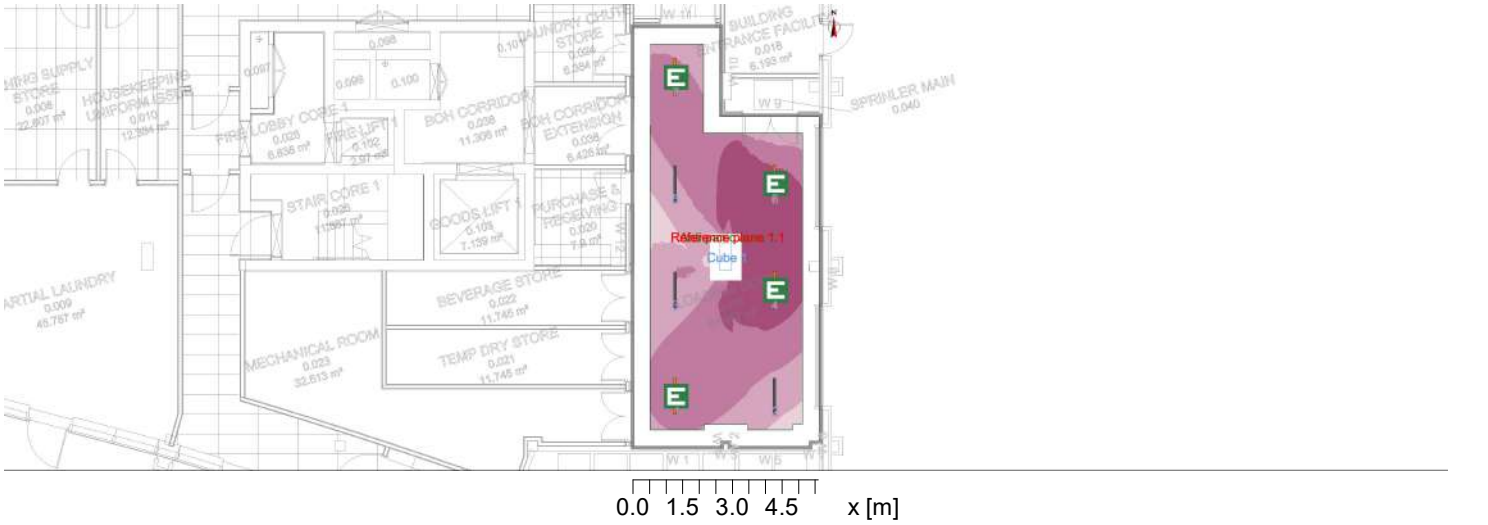
Type No.\Make

		Thorn	
4	7E x	Order No.	: 92901968
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

14 0.019 Loading Dock

14.2 Summary, 0.019 Loading Dock

14.2.1.1 Result overview (emergency lighting)

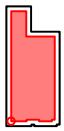


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

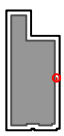
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 4.59m x 11.61m (8 x 20 pts), Height = 0.00m			
1	2.42 lx	12.20 lx	1: 5.05
	>= 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	5.18 lx	5.72 lx
	>= 5 lx	



14 0.019 Loading Dock

14.2 Summary, 0.019 Loading Dock

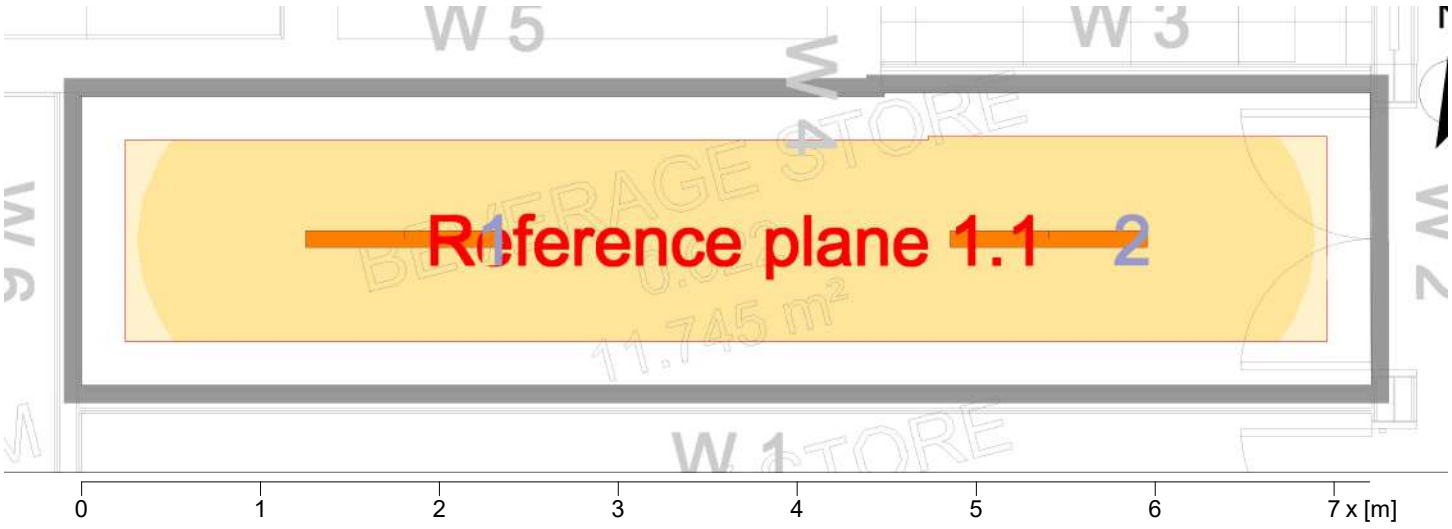
14.2.1.1 Result overview (emergency lighting)

Type	No.\Make	
		Thorn
4	4E x	Order No. : 92901968 -- Emergency Lighting --
		Luminaire name : AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment : 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency : 500 lm (11.4 %)

15 0.022 Beverage Store

15.1 Summary, 0.022 Beverage Store

15.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	8800 lm
Luminaire luminous flux	8798 lm
Total power	66.8 W
Total power per area (11.65 m²)	5.73 W/m² (4.56 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	126 lx
E_{min}	98 lx
$E_{min}/\bar{E}_m$ (U_o)	0.78
E_{min}/E_{max} (U_d)	0.70
Position	0.00 m

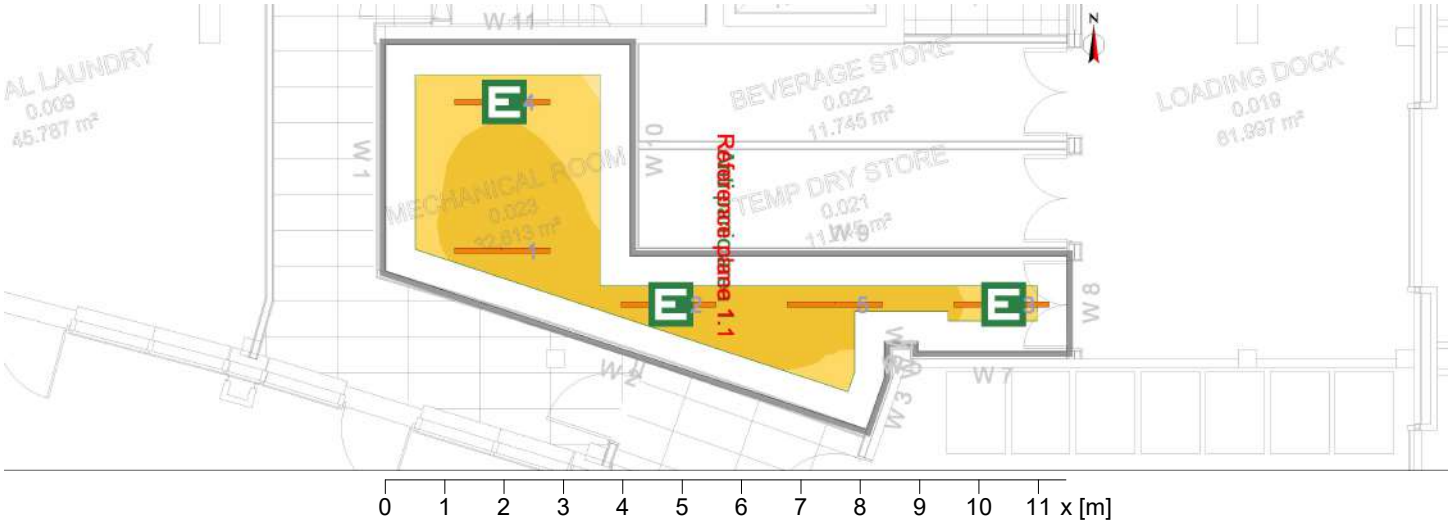
Type No.\Make

4	2 x	**Thorn**	
		Order No.	: 92901968
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

16 0.023 Mechancial Room

16.1 Summary, 0.023 Mechancial Room

16.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	33050 lm
Luminaire luminous flux	33042 lm
Total power	239.5 W
Total power per area (32.87 m²)	7.29 W/m² (3.47 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	210 lx
E_{min}	141 lx
$E_{min}/\bar{E}_m$ (U_o)	0.67
E_{min}/E_{max} (U_d)	0.56
Position	0.00 m

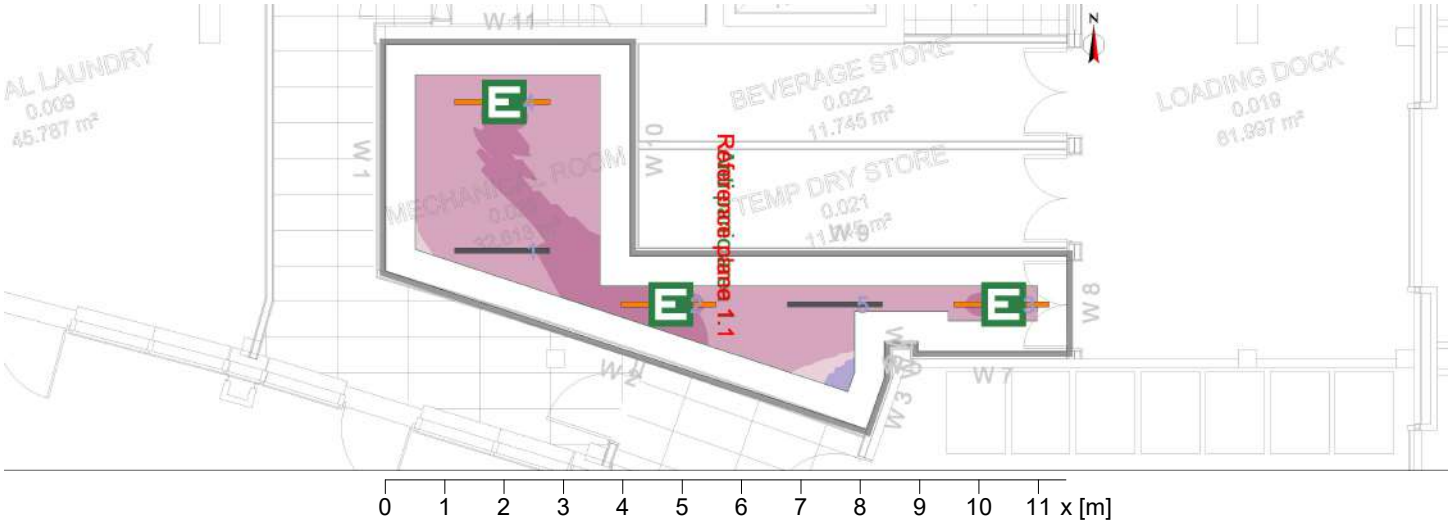
Type No.\Make

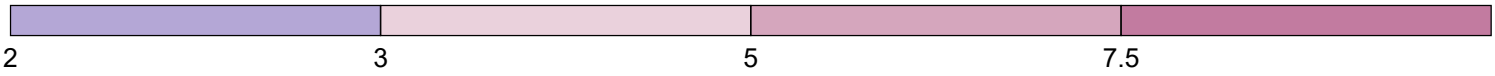
		Thorn	
5	5E x	Order No.	: 92902358
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

16 0.023 Mechancial Room

16.2 Summary, 0.023 Mechancial Room

16.2.1.1 Result overview (emergency lighting)





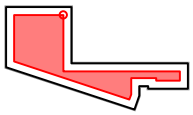
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.33m x 10.46m (16 x 32 pts), Height = 0.00m			
1	2.46 lx	9.01 lx	1: 3.67
	>= 0.5 lx		>= 1 : 40



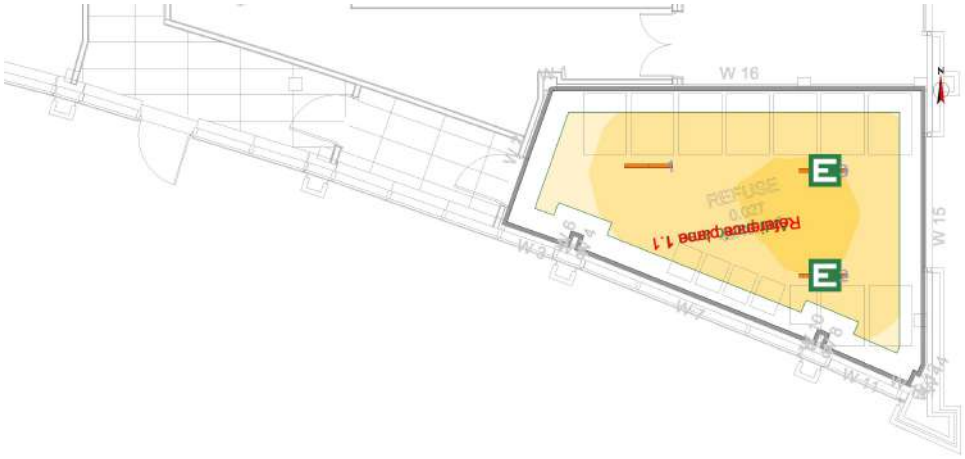
Type No.\Make

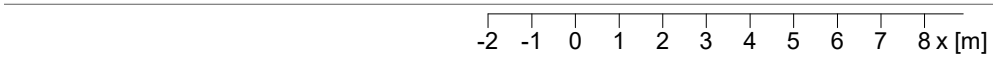
		Thorn	
5	3E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

17 0.027 Refuse

17.1 Summary, 0.027 Refuse

17.1.1 Result overview, Evaluation area 1







Illuminance [lx]

General

Calculation algorithm used	High indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	13200 lm
Luminaire luminous flux	13196 lm
Total power	100.2 W
Total power per area (44.00 m²)	2.28 W/m² (1.74 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	131 lx
E_{min}	79 lx
$E_{min}/\bar{E}_m$ (U_o)	0.60
E_{min}/E_{max} (U_d)	0.48
Position	0.00 m

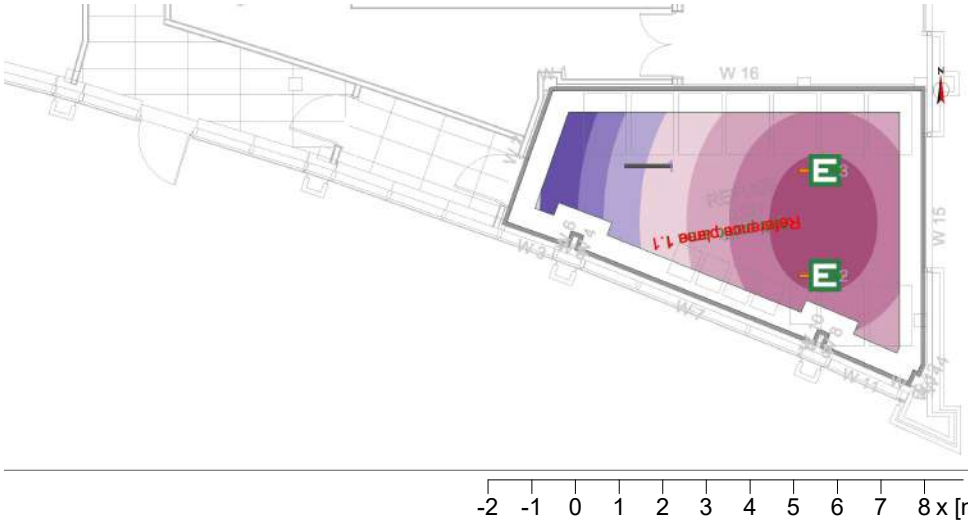
Type No.\Make

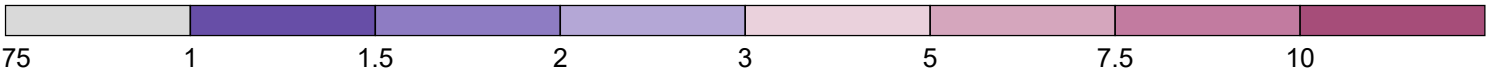
		Thorn	
4	3E x	Order No.	: 92901968
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

17 0.027 Refuse

17.2 Summary, 0.027 Refuse

17.2.1.1 Result overview (emergency lighting)



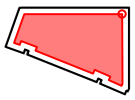


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

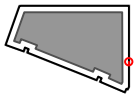
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 8.58m x 6.57m (10 x 7 pts), Height = 0.00m			
1	0.95 lx	11.62 lx	1: 12.26
	>= 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	5.03 lx	5.66 lx
	>= 5 lx	



17 0.027 Refuse

17.2 Summary, 0.027 Refuse

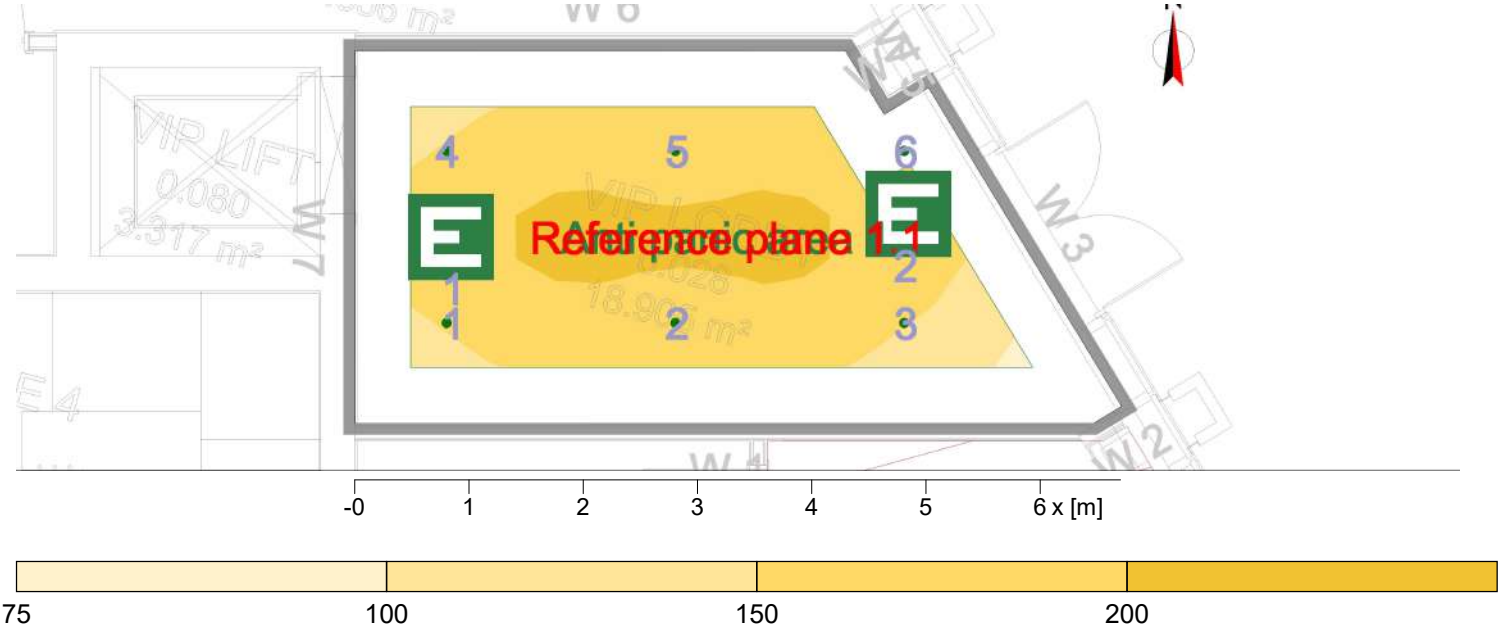
17.2.1.1 Result overview (emergency lighting)

Type	No.\Make	
		Thorn
4	2E x	Order No. : 92901968 -- Emergency Lighting --
		Luminaire name : AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment : 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency : 500 lm (11.4 %)

18 0.028 VIP Lobby

18.1 Summary, 0.028 VIP Lobby

18.1.1 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	5598 lm
Luminaire luminous flux	5031 lm
Total power	84.0 W
Total power per area (18.62 m²)	4.51 W/m² (2.52 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	179 lx
E_{min}	99 lx
$E_{min}/\bar{E}_m$ (U_o)	0.55
E_{min}/E_{max} (U_d)	0.48
Position	0.00 m (rot: 0°/0°)

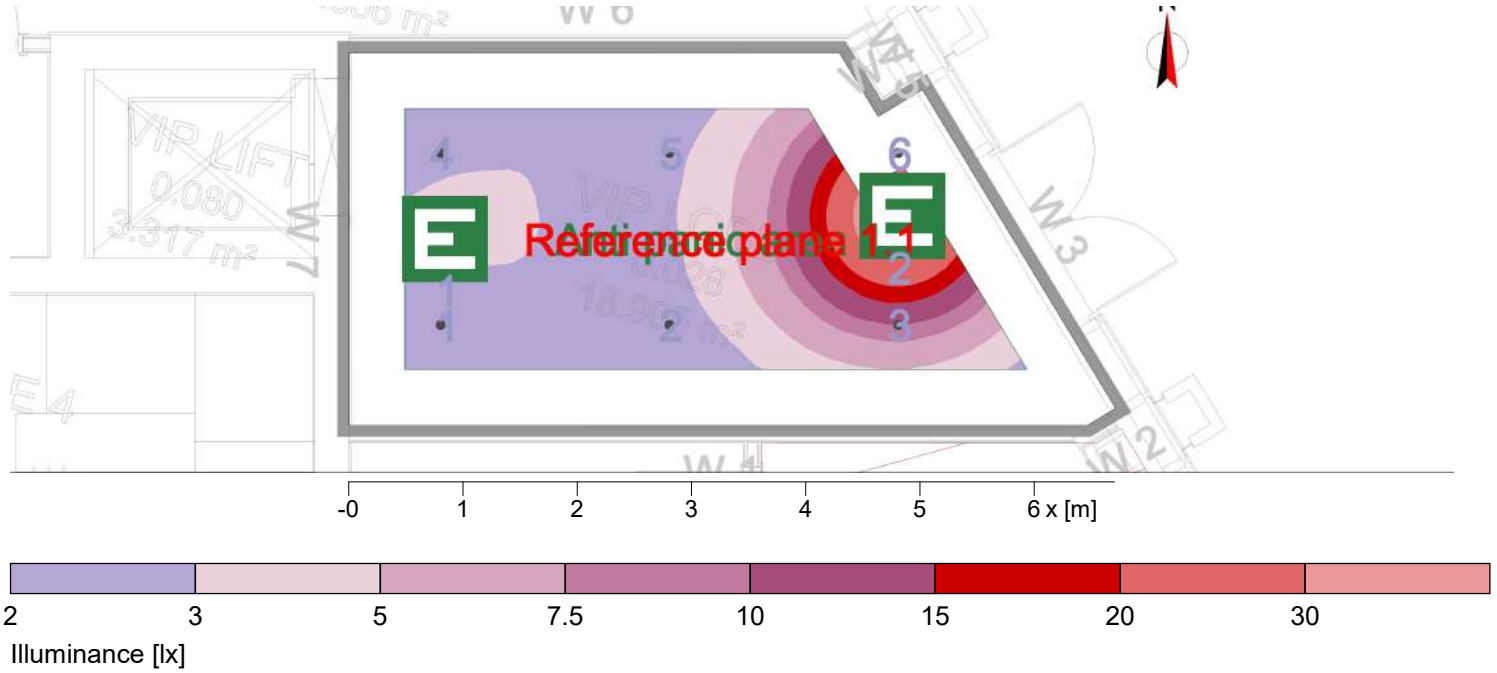
Type No.\Make

		Chiara Lighting Limited
9	6 x	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

18 0.028 VIP Lobby

18.2 Summary, 0.028 VIP Lobby

18.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.50 m	
Maximum I	: 600 cd	<= 2500 cd

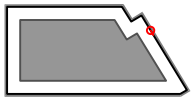
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.44m x 2.28m (15 x 6 pts), Height = 0.00m			
1	2.21 lx	39.55 lx	1: 17.92
	>= 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	5.47 lx	6.12 lx
	>= 5 lx	



18 0.028 VIP Lobby

18.2 Summary, 0.028 VIP Lobby

18.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

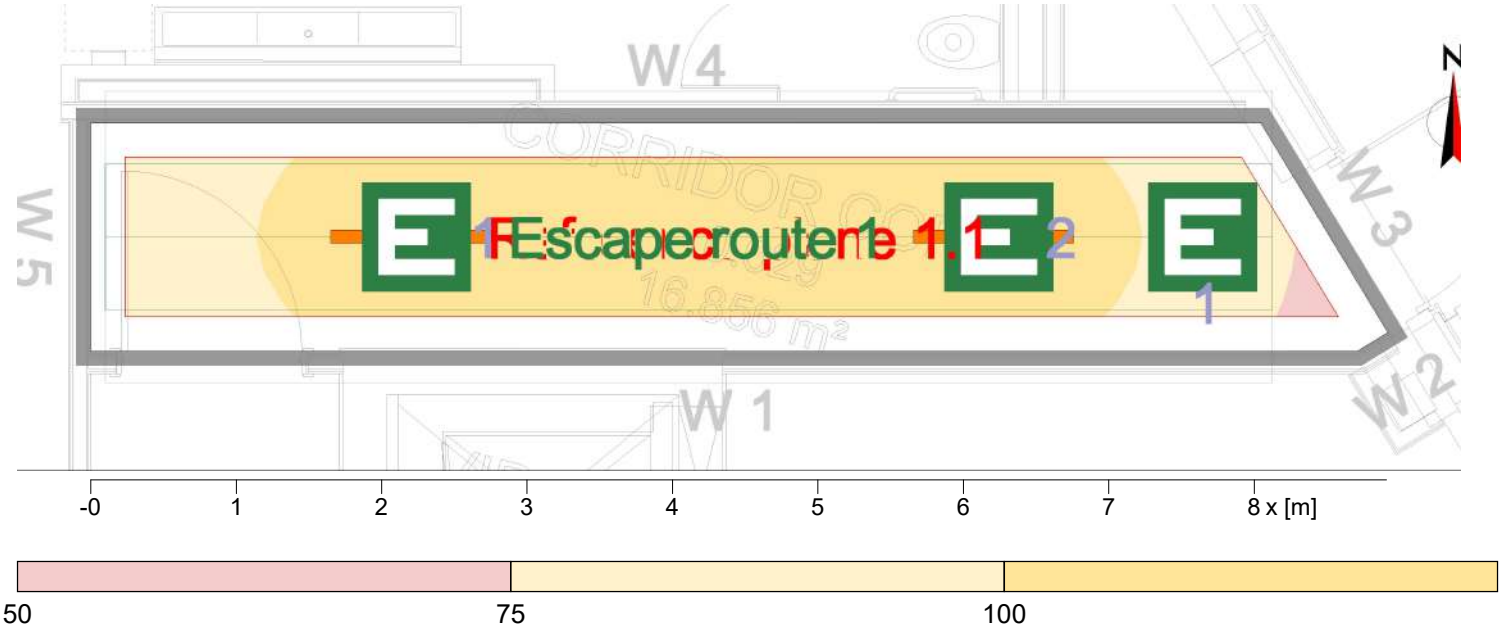
3 1E x 
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

15 1E x 
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

19 0.029 Corridor Core 4

19.1 Summary, 0.029 Corridor Core 4

19.1.1 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	8800 lm
Luminaire luminous flux	8798 lm
Total power	66.8 W
Total power per area (13.31 m²)	5.02 W/m² (4.62 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	109 lx
E_{min}	69 lx
$E_{min}/\bar{E}_m$ (U_o)	0.63
E_{min}/E_{max} (U_d)	0.56
Position	0.00 m (rot: 0°/0°)

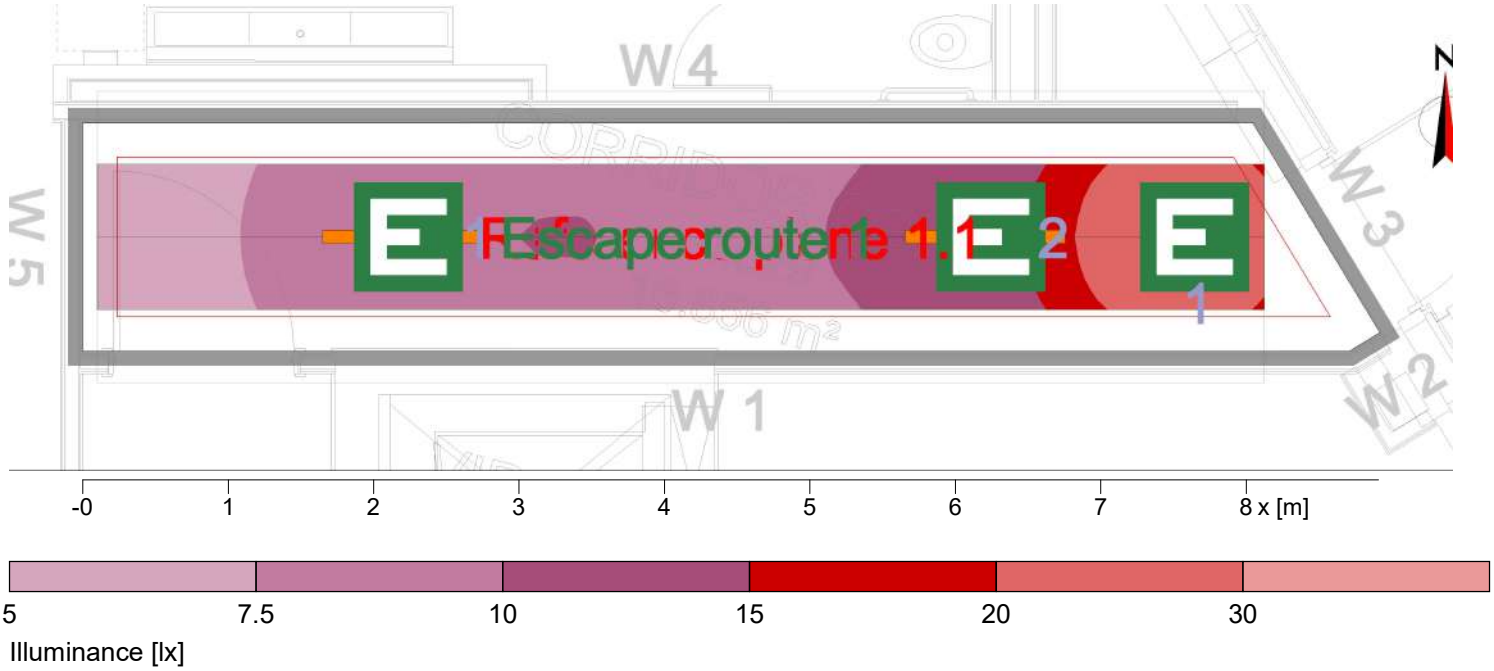
Type No.\Make

		Thorn	
4	2E x	Order No.	: 92901968 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

19 0.029 Corridor Core 4

19.2 Summary, 0.029 Corridor Core 4

19.2.1.1 Result overview (emergency lighting)

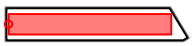


General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 8.02m x 1m (40 x 9 pts), Height = 0.00m					
1	5.27 lx	30.56 lx	1: 5.80	5.16 lx	30.56 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	7.21 lx	7.94 lx
	>= 5 lx	



19 0.029 Corridor Core 4

19.2 Summary, 0.029 Corridor Core 4

19.2.1.1 Result overview (emergency lighting)

Type No.\Make

Thorn

4 2E x

Order No. : 92901968 -- Emergency Lighting --
Luminaire name : AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
Equipment : 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
Emergency : 500 lm (11.4 %)

Tridonic

14 1E x

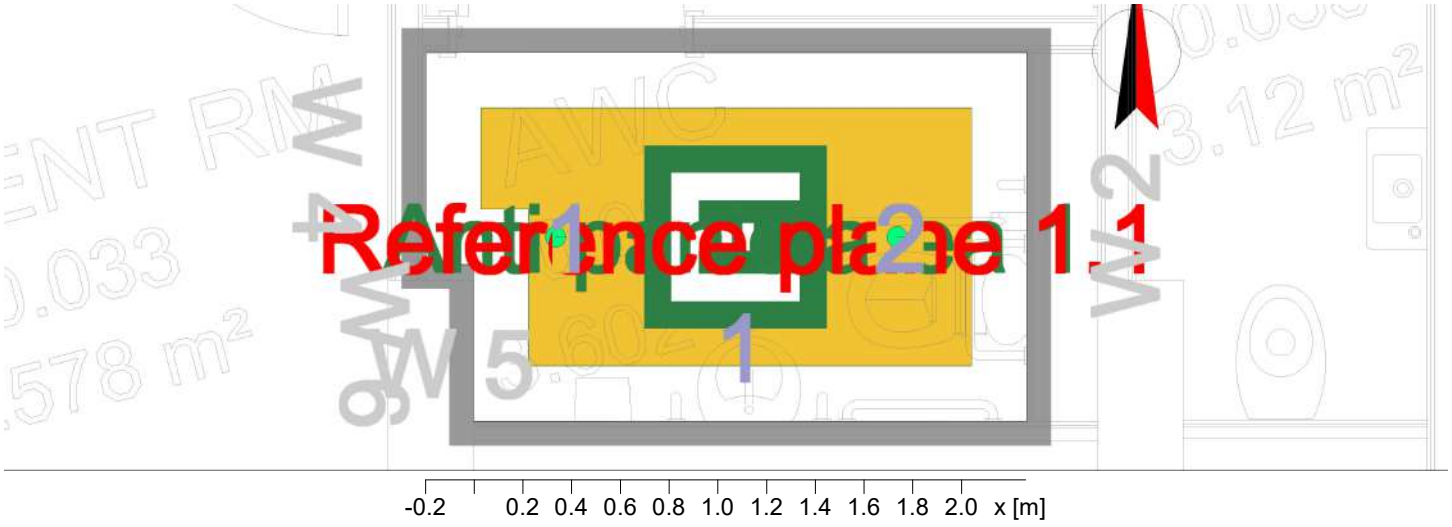


Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Surface)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

20 0.034 AWC

20.1 Summary, 0.034 AWC

20.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (3.59 m²)	7.80 W/m² (3.15 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	247 lx
E_{min}	213 lx
$E_{min}/\bar{E}_m$ (U_o)	0.86
E_{min}/E_{max} (U_d)	0.76
Position	0.00 m (rot: 0°/0°)

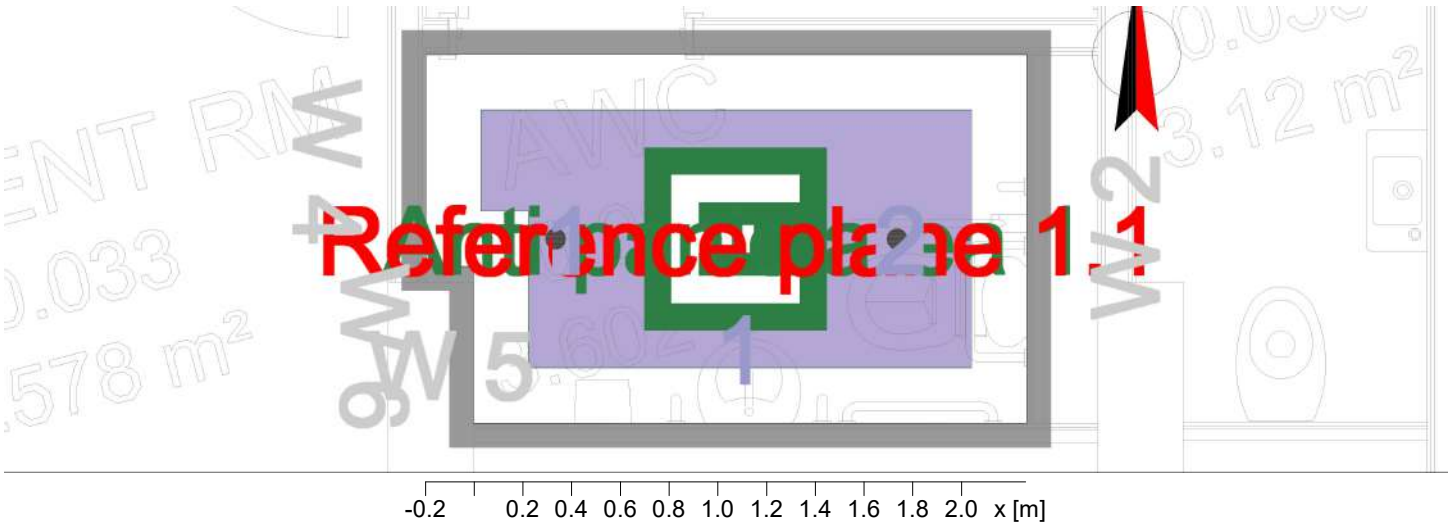
Type No.\Make

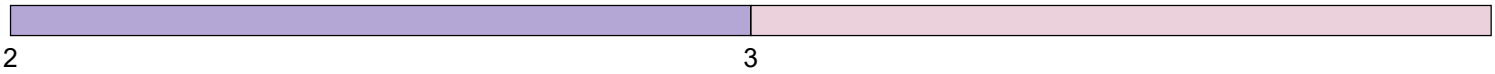
		Chiara Lighting Limited
8	2 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

20 0.034 AWC

20.2 Summary, 0.034 AWC

20.2.1.1 Result overview (emergency lighting)





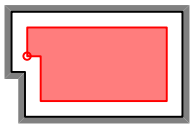
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.01m x 1.06m (6 x 3 pts), Height = 0.00m			
1	2.72 lx	2.98 lx	1: 1.10
	>= 0.5 lx		>= 1 : 40



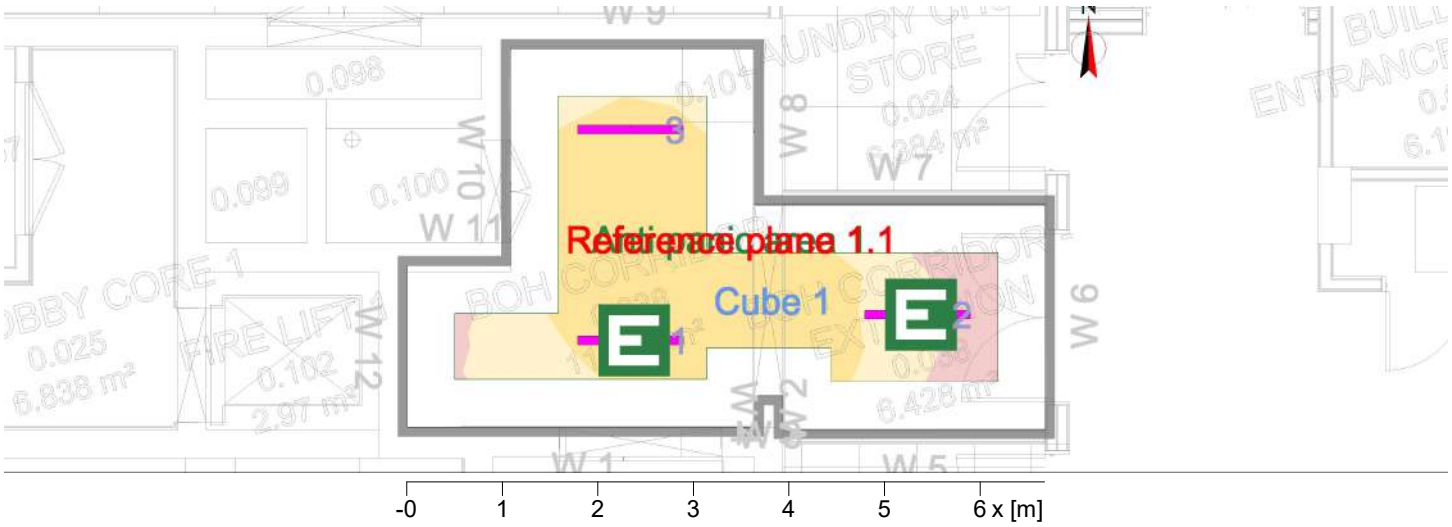
Type No.\Make

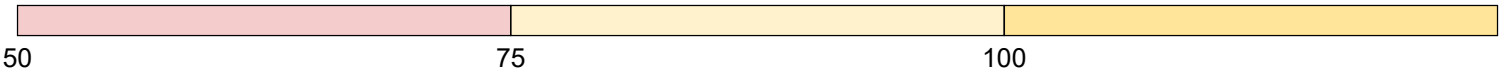
		Tridonic	
3	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

21 0.038 BOH Corridor

21.1 Summary, 0.038 BOH Corridor

21.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	8850 lm
Luminaire luminous flux	8847 lm
Total power	68.7 W
Total power per area (18.93 m²)	3.63 W/m² (3.40 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	107 lx
E_{min}	68 lx
$E_{min}/\bar{E}_m$ (U_o)	0.64
E_{min}/E_{max} (U_d)	0.51
Position	0.00 m (rot: 0°/0°)

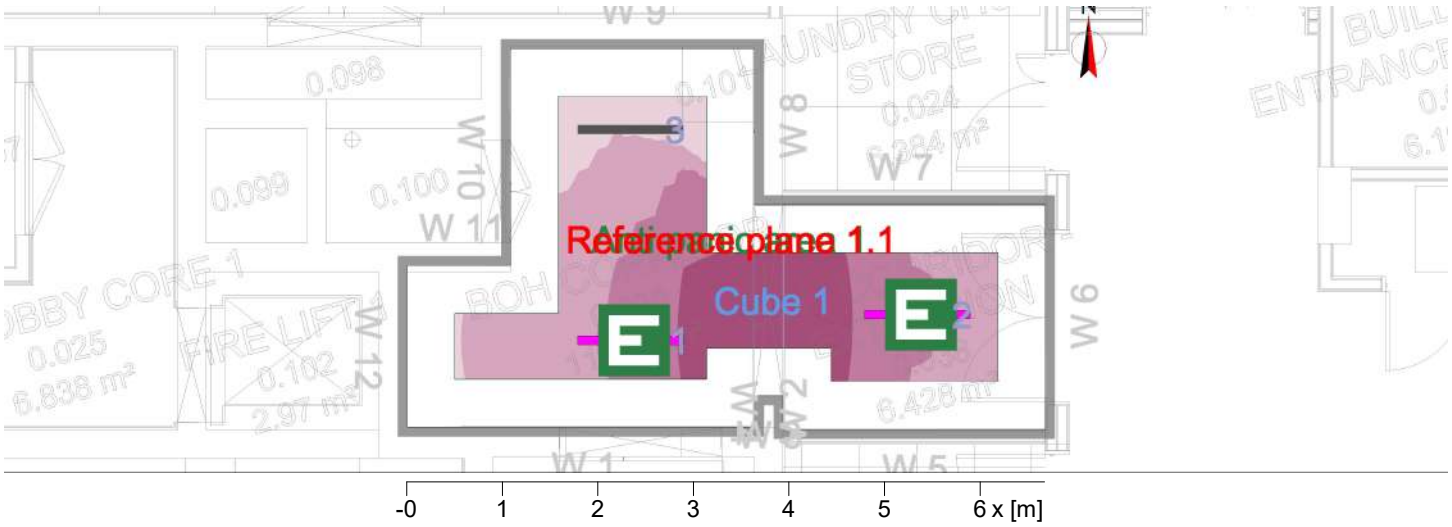
Type No.\Make

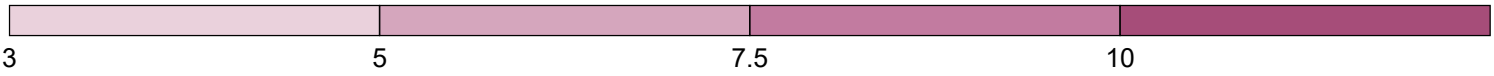
		Thorn	
1	3E x	Order No.	: 92902217
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

21 0.038 BOH Corridor

21.2 Summary, 0.038 BOH Corridor

21.2.1.1 Result overview (emergency lighting)





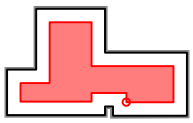
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.67m x 2.97m (8 x 4 pts), Height = 0.00m			
1	3.38 lx	10.88 lx	1: 3.22
	>= 0.5 lx		>= 1 : 40



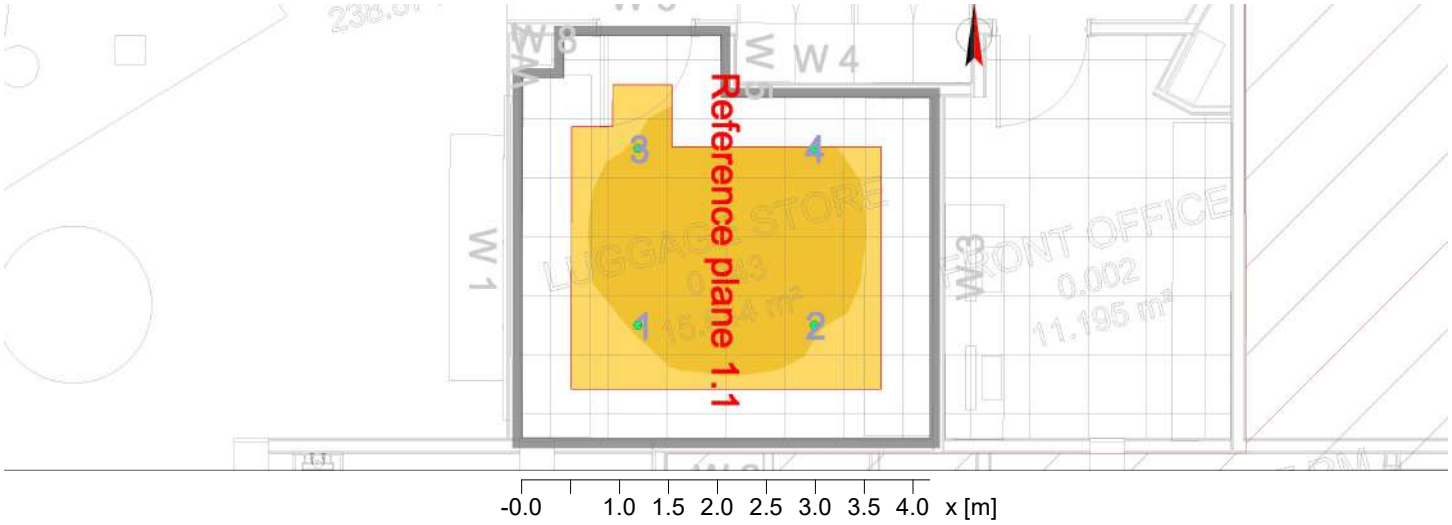
Type No.\Make

		Thorn	
1	2E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

22 0.043 Luggage Store

22.1 Summary, 0.043 Luggage Store

22.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Luminaire luminous flux	4197 lm
Total power	56.0 W
Total power per area (15.54 m²)	3.60 W/m² (1.63 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	221 lx
E_{min}	162 lx
$E_{min}/\bar{E}_m$ (U_o)	0.73
E_{min}/E_{max} (U_d)	0.62
Position	0.00 m

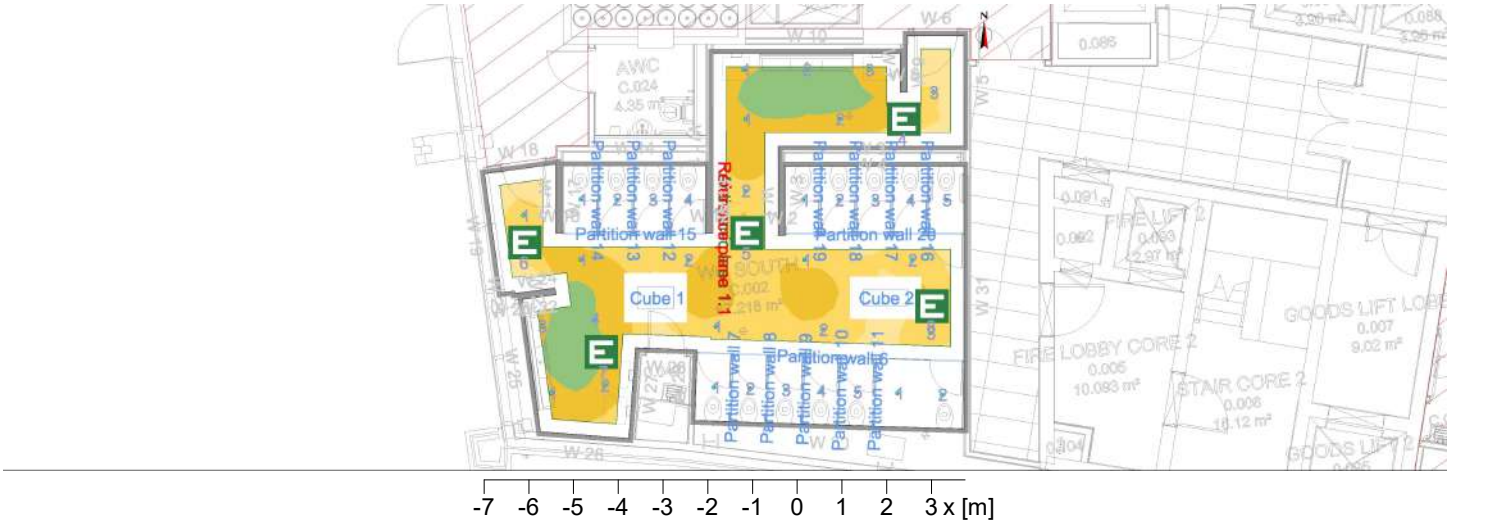
Type No.\Make

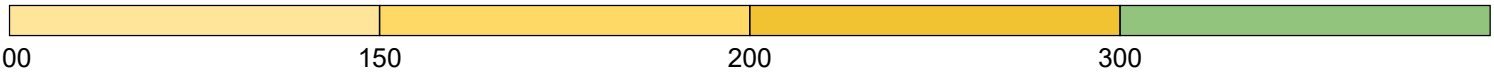
		Chiara Lighting Limited	
8	4 x	Order No.	: !APRF.X.X LE5.27.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 927.14W.50d
		Equipment	: 1 x 2700K 14 W / 943 lm

23 C.002 WC South

23.1 Summary, C.002 WC South

23.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Total lamp luminous flux	34545 lm
Luminaire luminous flux	31045 lm
Total power	490.0 W
Total power per area (67.97 m²)	7.21 W/m² (3.24 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	222 lx
E_{min}	108 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.30
Position	0.00 m

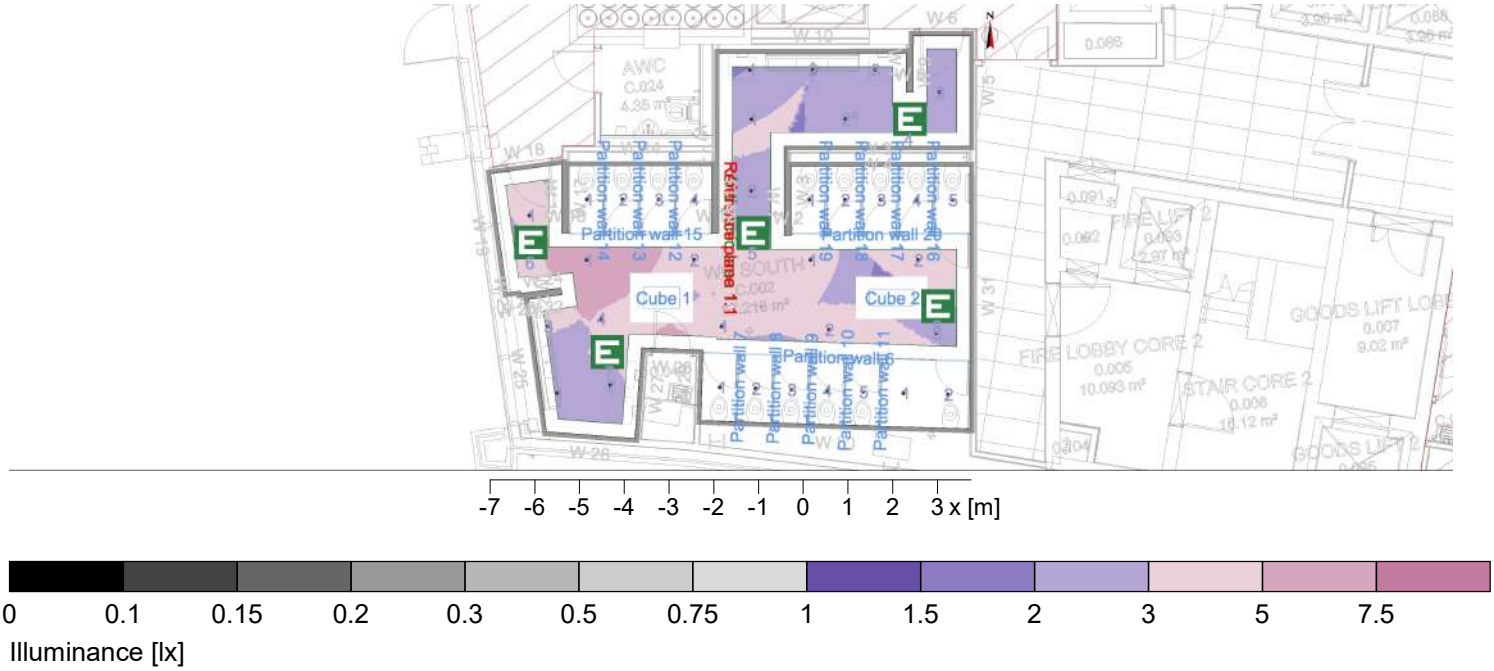
Type No.\Make

		Chiara Lighting Limited
7	35 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

23 C.002 WC South

23.2 Summary, C.002 WC South

23.2.1.1 Result overview (emergency lighting)

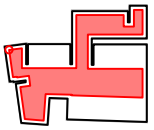


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 8.35m x 10.07m (24 x 29 pts), Height = 0.00m			
1	1.58 lx	6.34 lx	1: 4.02
	>= 0.5 lx		>= 1 : 40



Type No.\Make

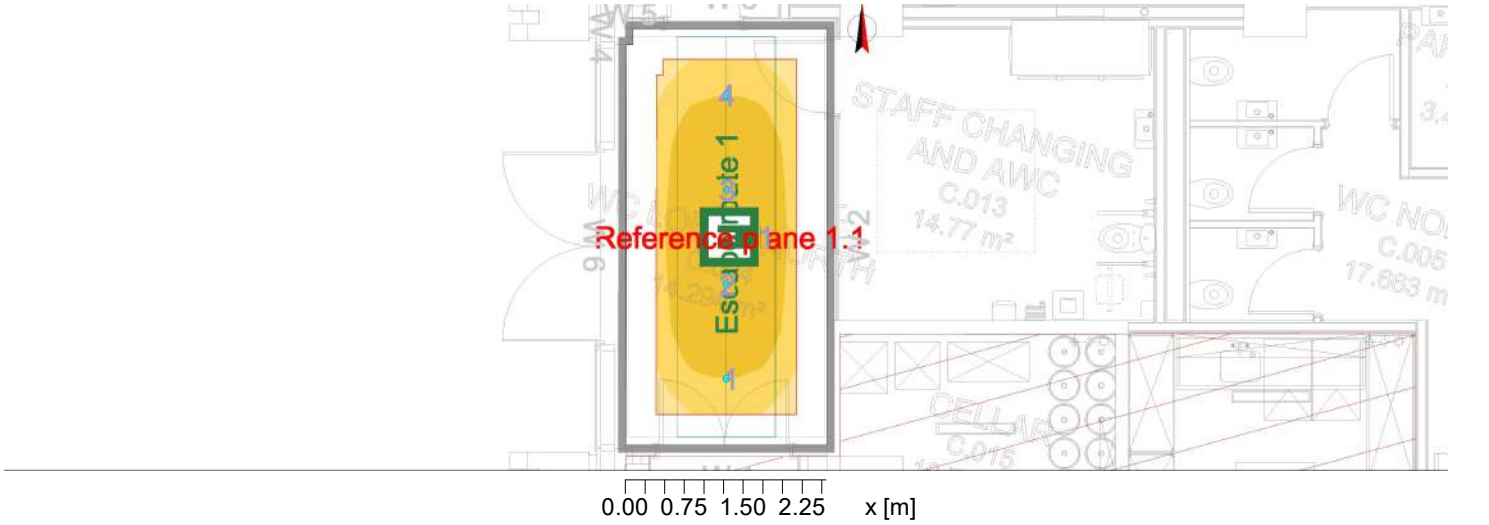
3 5E x **Tridonic**

Order No.	: ! -- Emergency Lighting --
Luminaire name	: 2W Anti Panic (Recessed)
Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency	: 217 lm

24 C.004 WC Lobby North

24.1 Summary, C.004 WC Lobby North

24.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 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 (13.44 m²)	4.17 W/m² (1.97 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	212 lx
E_{min}	137 lx
$E_{min}/\bar{E}_m$ (U_o)	0.64
E_{min}/E_{max} (U_d)	0.51
Position	0.00 m (rot: 0°/0°)

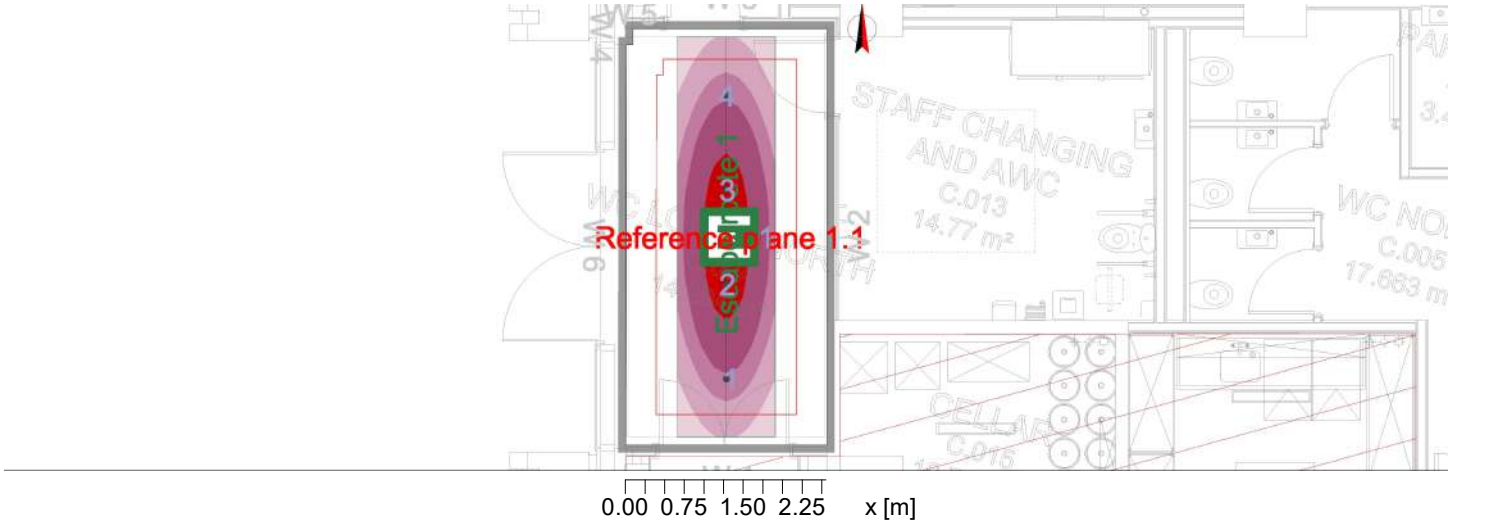
Type No.\Make

		Chiara Lighting Limited	
7	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

24 C.004 WC Lobby North

24.2 Summary, C.004 WC Lobby North

24.2.1.1 Result overview (emergency lighting)

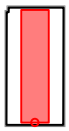


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 190 cd	<= 900 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 5.08m x 1.25m (22 x 9 pts), Height = 0.00m					
1	5.15 lx	18.73 lx	1: 3.64	3.14 lx	18.73 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



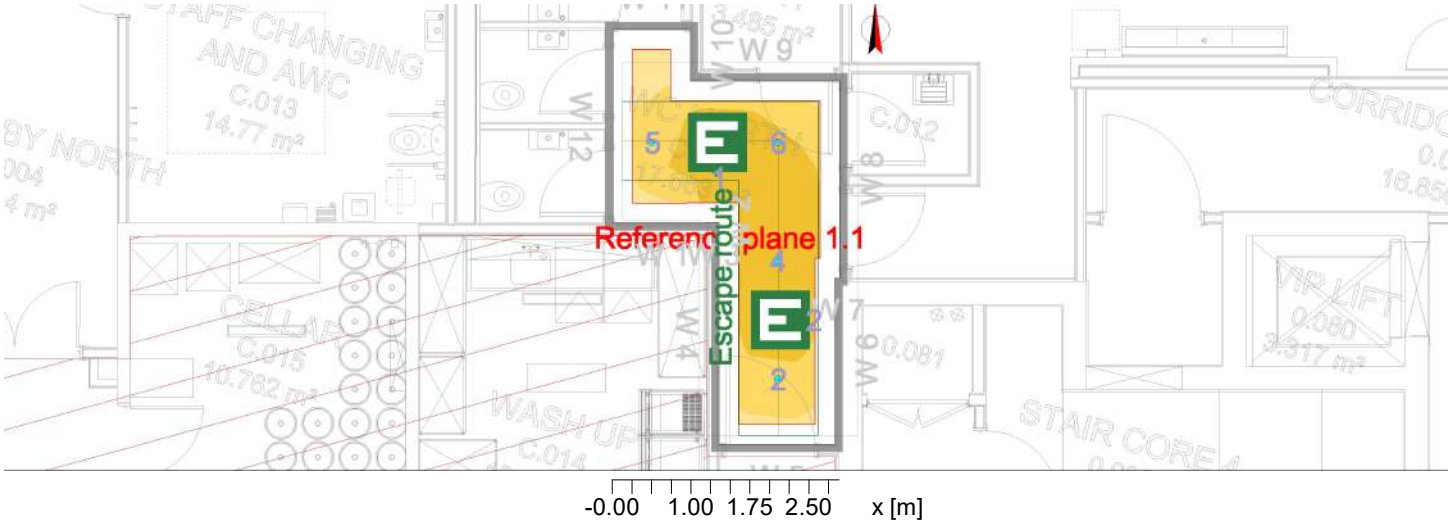
Type No.\Make

		Tridonic	
16	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Escape Route (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 208 lm (0%)
		Emergency	: 208 lm

25 C.005 WC North

25.1 Summary, C.005 WC North

25.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 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 (10.00 m²)	5.60 W/m² (2.72 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	206 lx
E_{min}	125 lx
$E_{min}/\bar{E}_m$ (U_o)	0.61
E_{min}/E_{max} (U_d)	0.50
Position	0.00 m (rot: 0°/0°)

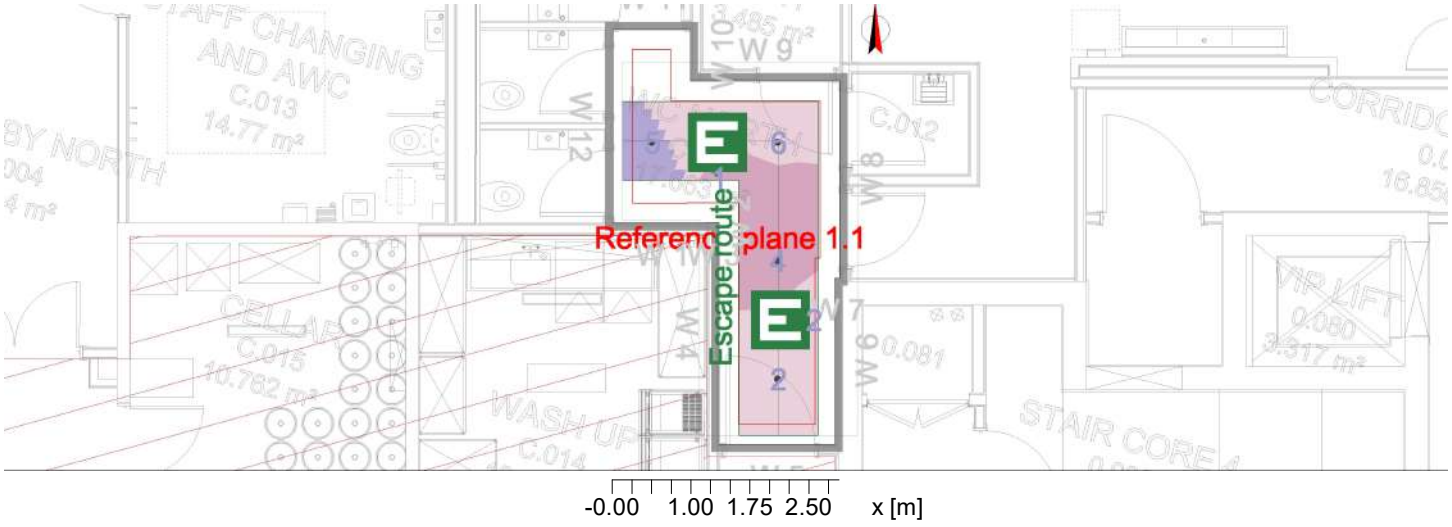
Type No.\Make

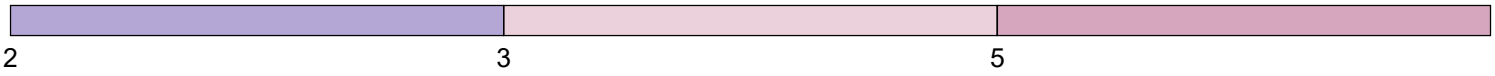
		Chiara Lighting Limited
7	4 x	Order No. : !APRF.X.X LE5.30.14.50.X
		Luminaire name : Arch Pro Round Fixed, 930.14W.50d
		Equipment : 1 x 3000k 14 W / 987 lm

25 C.005 WC North

25.2 Summary, C.005 WC North

25.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 5.71m x 1m (29 x 9 pts), Height = 0.00m					
1	2.69 lx	5.50 lx	1: 2.04	2.69 lx	5.56 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



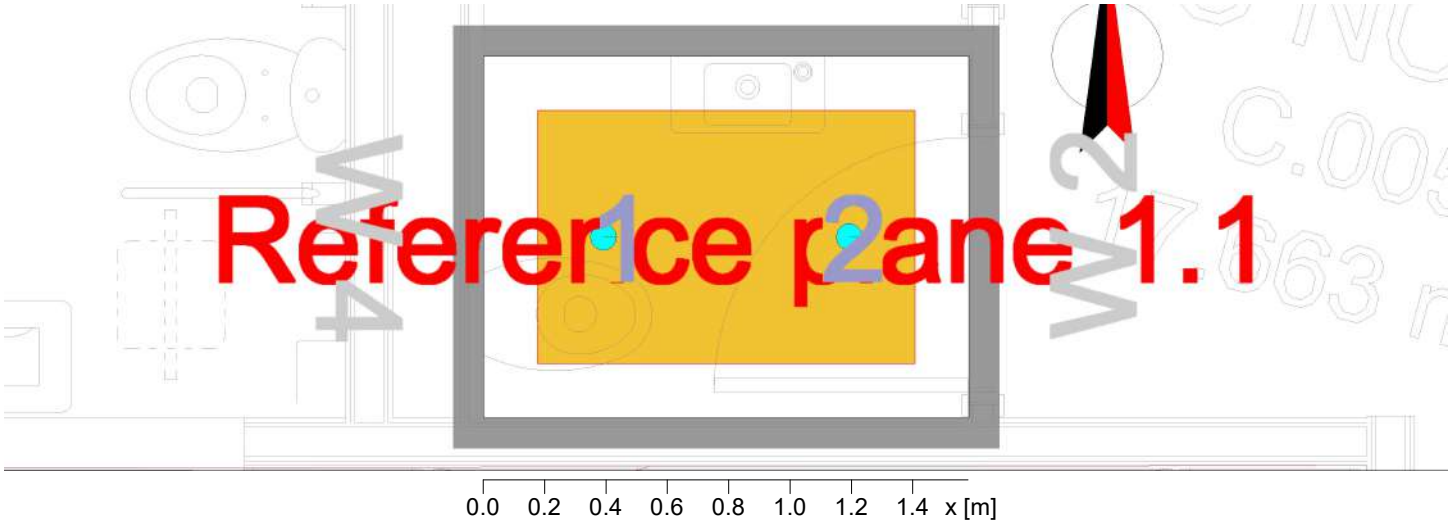
Type No.\Make

		Tridonic	
3	2E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

26 C.005 WC North (WC)

26.1 Summary, C.005 WC North (WC)

26.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 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 (1.86 m²)	15.08 W/m² (5.52 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	273 lx
E_{min}	254 lx
$E_{min}/\bar{E}_m$ (U_o)	0.93
E_{min}/E_{max} (U_d)	0.86
Position	0.00 m

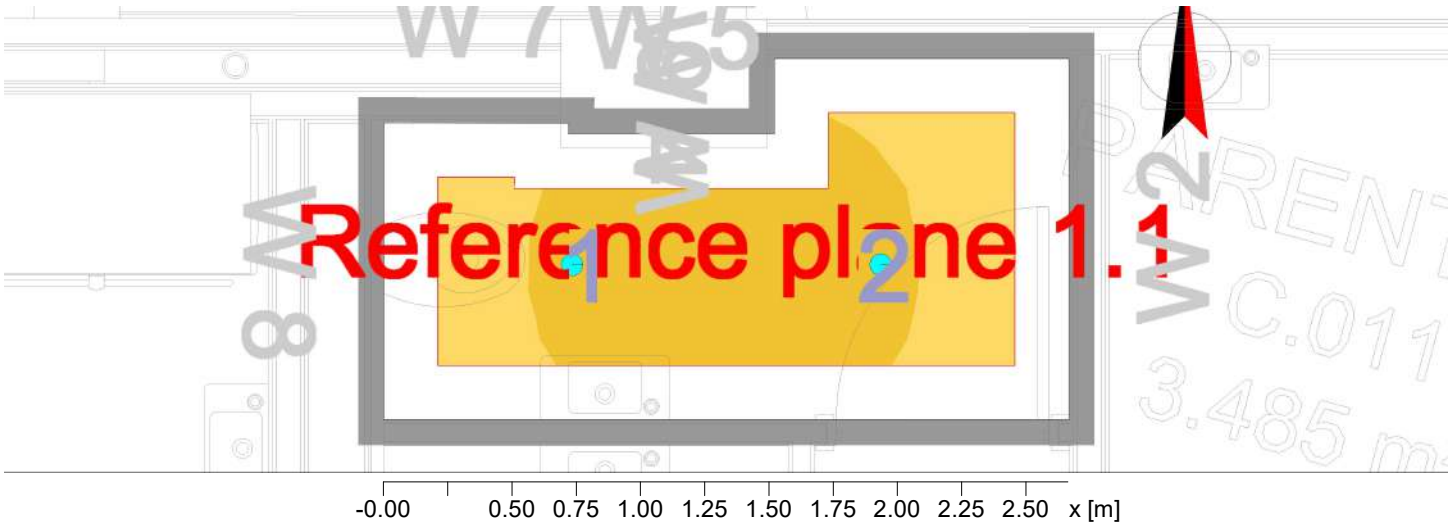
Type No.\Make

		Chiara Lighting Limited	
7	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

27 C.005 WC North (Large WC)

27.1 Summary, C.005 WC North (Large WC)

27.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 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 (3.32 m²)	8.44 W/m² (3.99 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	212 lx
E_{min}	160 lx
$E_{min}/\bar{E}_m$ (U_o)	0.76
E_{min}/E_{max} (U_d)	0.63
Position	0.00 m (rot: 0°/0°)

Type No.\Make

		Chiara Lighting Limited	
7	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

28 C.006 WC North

28.1 Summary, C.006 WC North

28.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Total lamp luminous flux	34545 lm
Luminaire luminous flux	31045 lm
Total power	490.0 W
Total power per area (75.02 m²)	6.53 W/m² (2.57 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	254 lx
E_{min}	103 lx
$E_{min}/\bar{E}_m$ (U_o)	0.41
E_{min}/E_{max} (U_d)	0.30
Position	0.00 m (rot: 0°/0°)

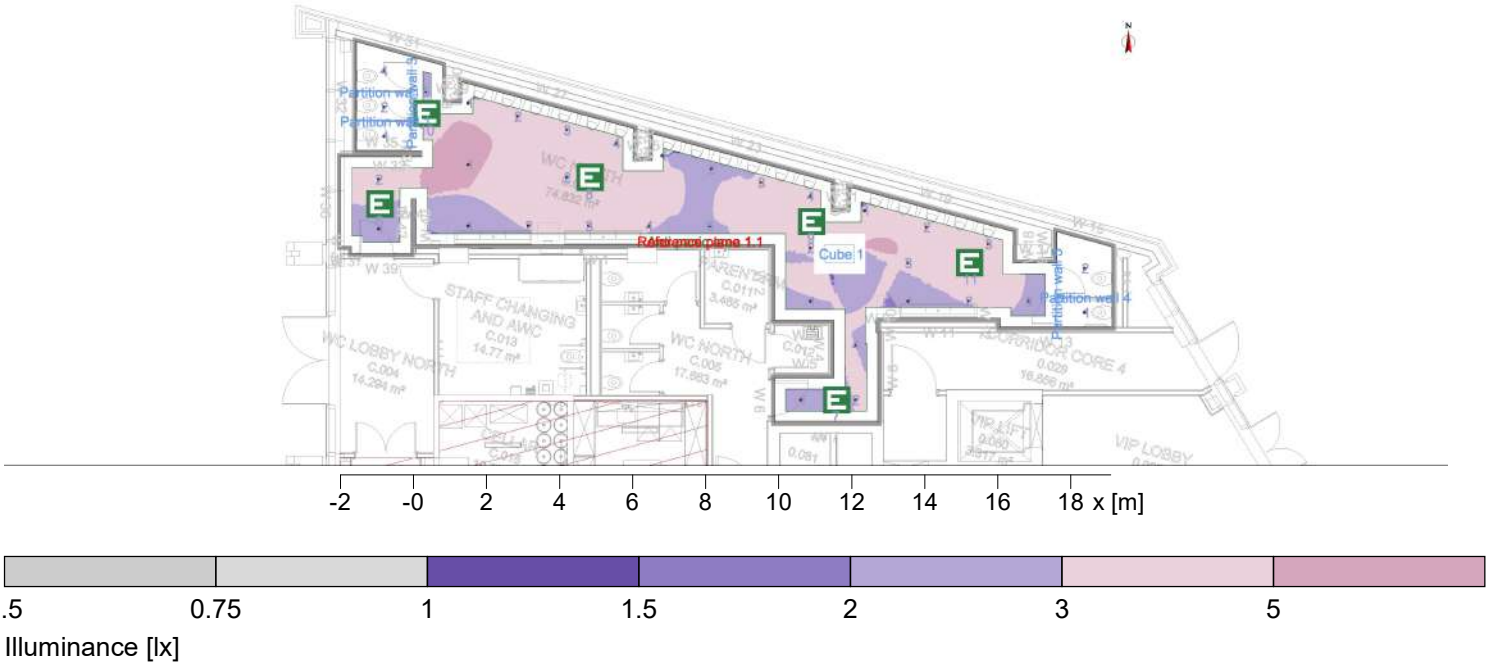
Type No.\Make

		Chiara Lighting Limited
7	35 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

28 C.006 WC North

28.2 Summary, C.006 WC North

28.2.1.1 Result overview (emergency lighting)

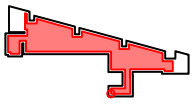


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 18.97m x 9.27m (59 x 29 pts), Height = 0.00m			
1	0.73 lx	6.17 lx	1: 8.47
	>= 0.5 lx		>= 1 : 40



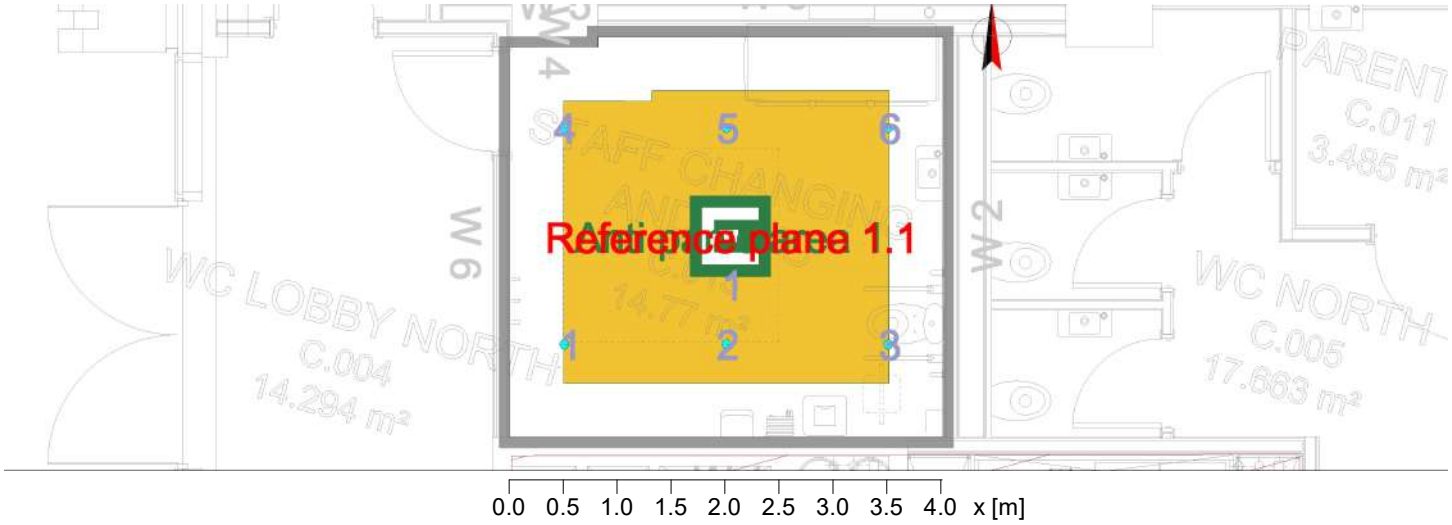
Type No.\Make

		Tridonic	
3	6E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

29 C.013 Staff Changing and AWC

29.1 Summary, C.013 Staff Changing and AWC

29.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 m
Maintenance factor	0.80
Total lamp luminous flux	5922 lm
Luminaire luminous flux	5322 lm
Total power	84.0 W
Total power per area (14.77 m²)	5.69 W/m² (2.35 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	242 lx
E_{min}	215 lx
$E_{min}/\bar{E}_m$ (U_o)	0.89
E_{min}/E_{max} (U_d)	0.84
Position	0.00 m (rot: 0°/0°)

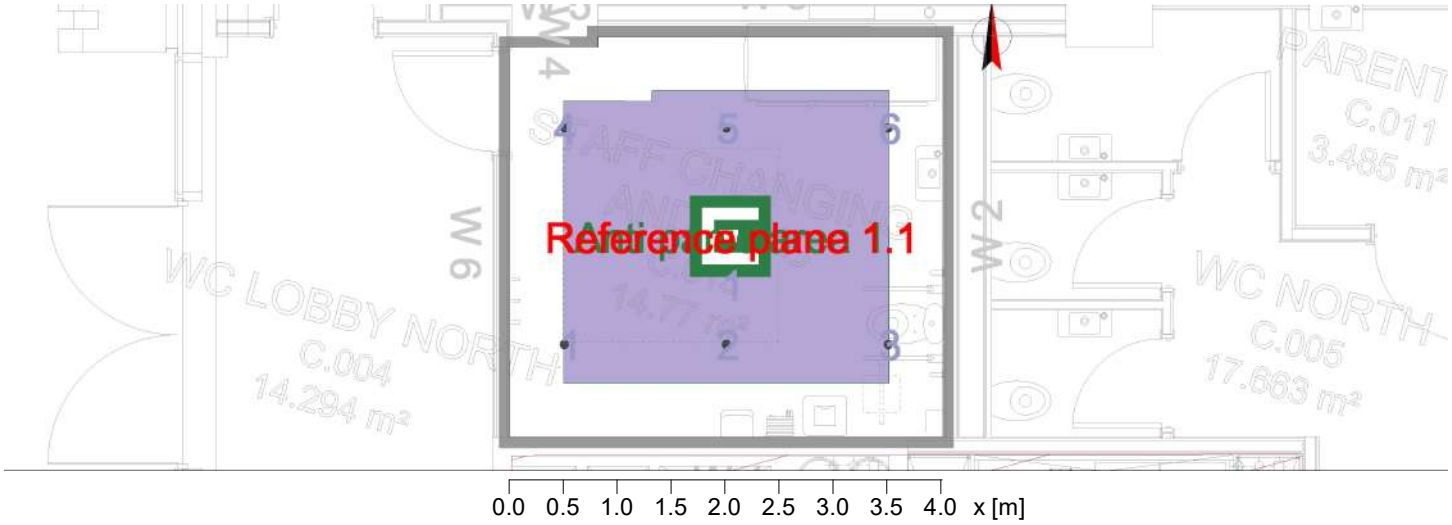
Type No.\Make

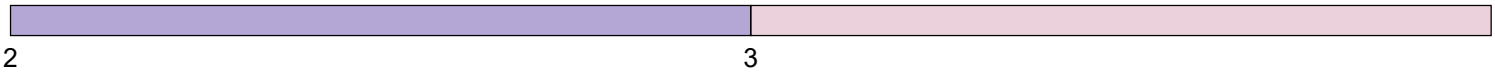
		Chiara Lighting Limited	
7	6 x	Order No.	: !APRF.X.X LE5.30.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 930.14W.50d
		Equipment	: 1 x 3000k 14 W / 987 lm

29 C.013 Staff Changing and AWC

29.2 Summary, C.013 Staff Changing and AWC

29.2.1.1 Result overview (emergency lighting)





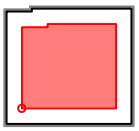
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 3.01m x 2.7m (7 x 6 pts), Height = 0.00m			
1	2.27 lx	2.99 lx	1: 1.31
	>= 0.5 lx		>= 1 : 40



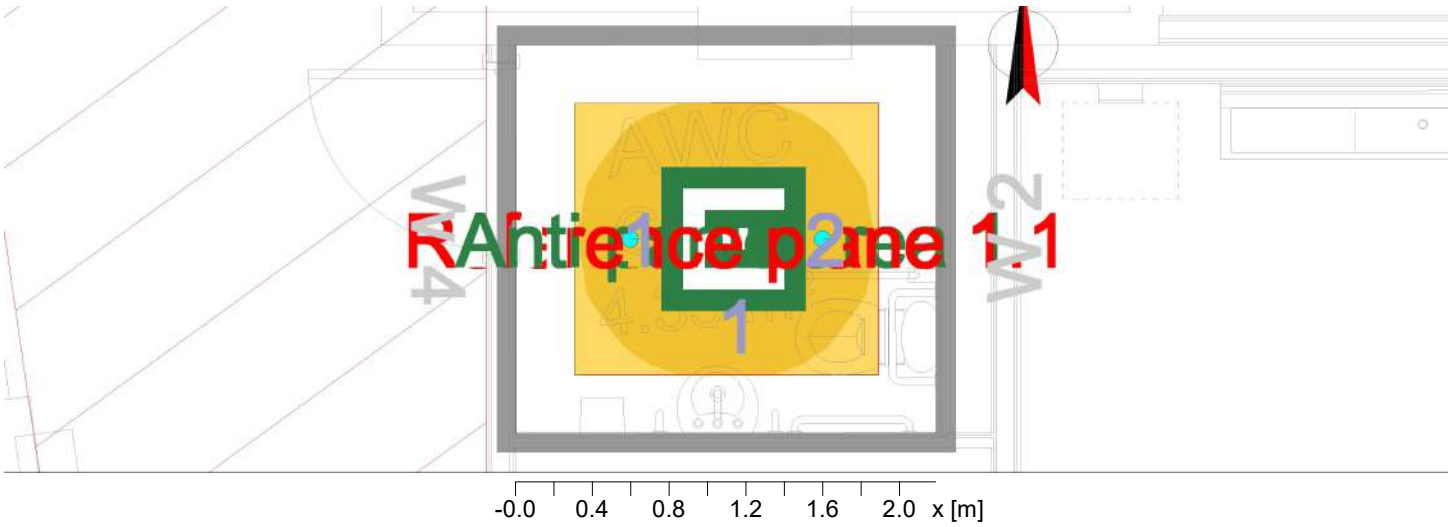
Type No.\Make

		Tridonic	
3	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

30 C.024 WC South

30.1 Summary, C.024 WC South

30.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.80 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 (4.41 m²)	6.35 W/m² (2.87 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	222 lx
E_{min}	188 lx
$E_{min}/\bar{E}_m$ (U_o)	0.85
E_{min}/E_{max} (U_d)	0.74
Position	0.00 m (rot: 0°/0.01°)

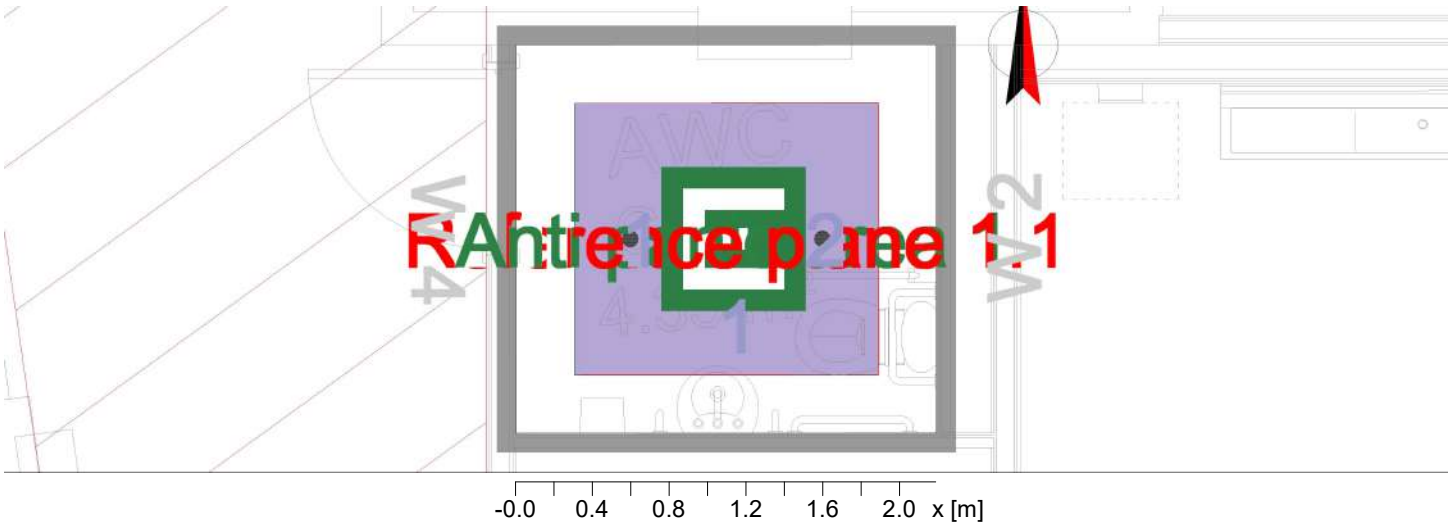
Type No.\Make

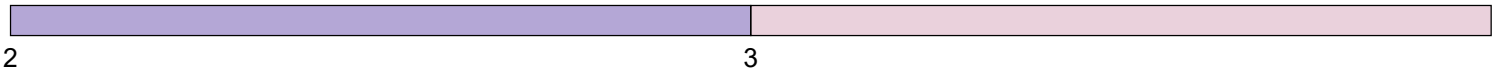
		Chiara Lighting Limited	
7	2 x	Order No.	: !APRF.X.X LE5.30.14.50.X
		Luminaire name	: Arch Pro Round Fixed, 930.14W.50d
		Equipment	: 1 x 3000k 14 W / 987 lm

30 C.024 WC South

30.2 Summary, C.024 WC South

30.2.1.1 Result overview (emergency lighting)





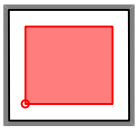
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.80 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.58m x 1.41m (6 x 5 pts), Height = 0.00m			
1	2.72 lx	2.99 lx	1: 1.10
	>= 0.5 lx		>= 1 : 40



Type No.\Make

3 1E x **Tridonic**

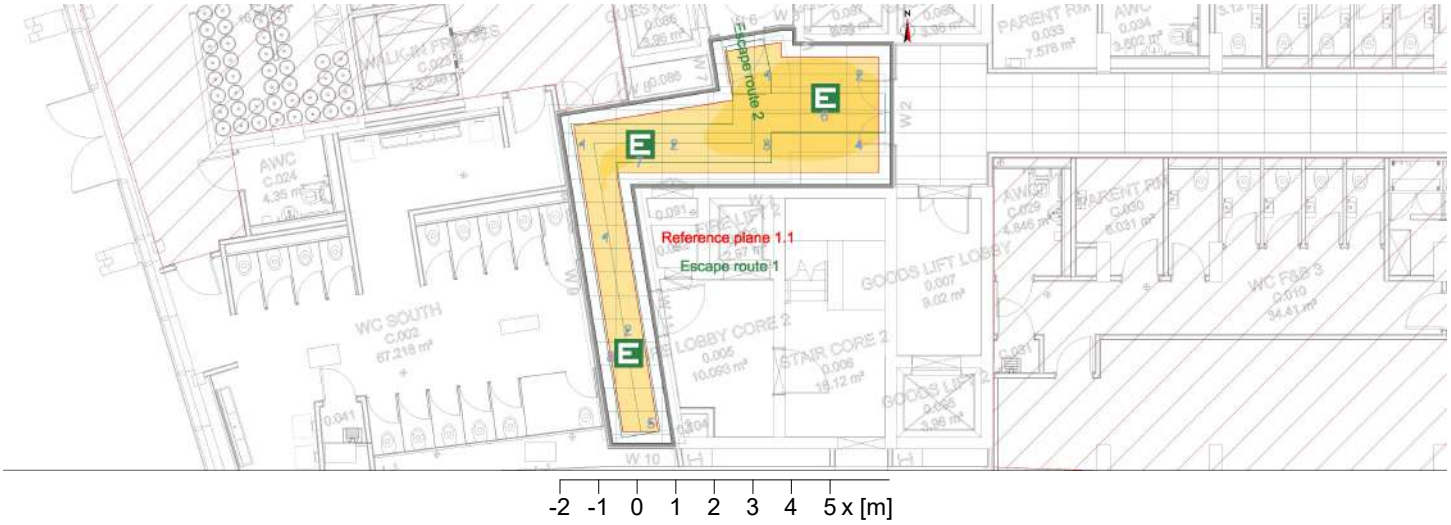


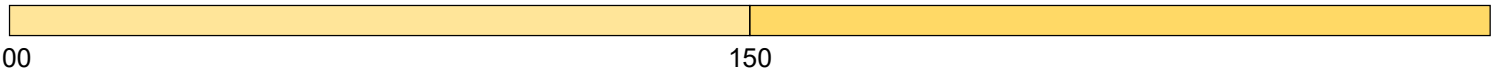
Order No.	: ! -- Emergency Lighting --
Luminaire name	: 2W Anti Panic (Recessed)
Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency	: 217 lm

31 Corridor off Lobby

31.1 Summary, Corridor off Lobby

31.1.1 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
Luminaire luminous flux	9444 lm
Total power	126.0 W
Total power per area (35.12 m²)	3.59 W/m² (2.37 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	151 lx
E_{min}	105 lx
$E_{min}/\bar{E}_m$ (U_o)	0.69
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m

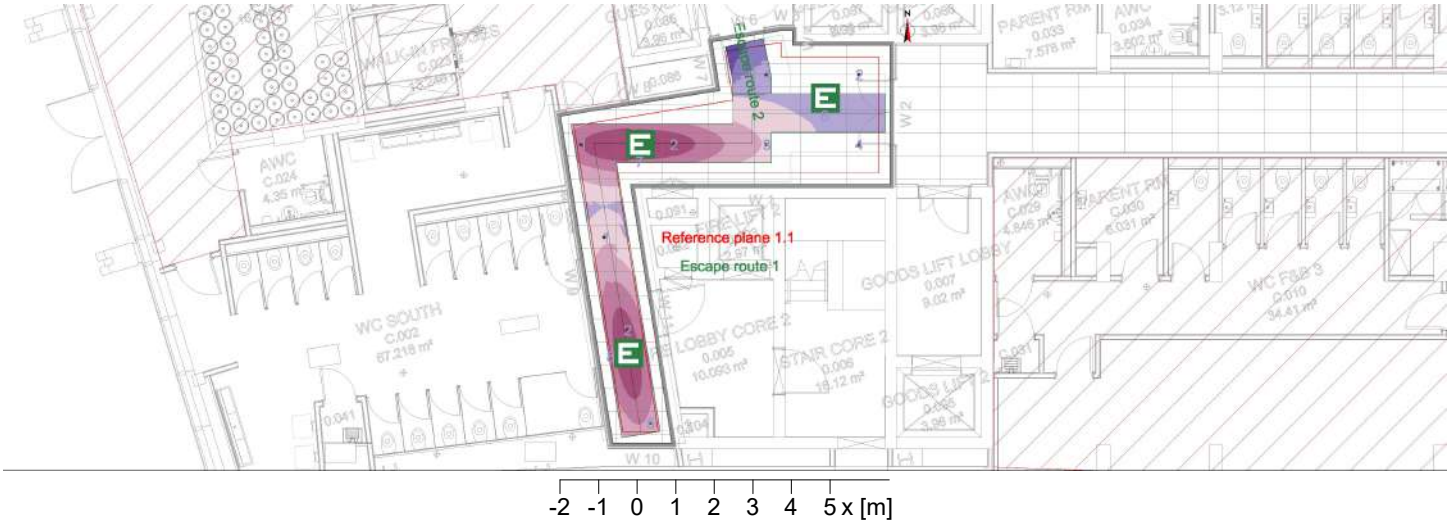
Type No.\Make

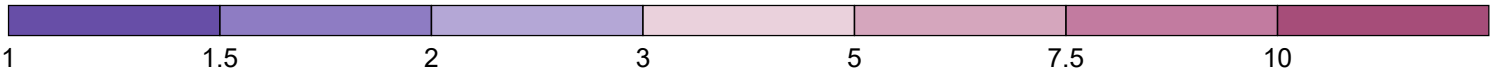
		Chiara Lighting Limited
18	9 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

31 Corridor off Lobby

31.2 Summary, Corridor off Lobby

31.2.1.1 Result overview (emergency lighting)





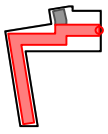
Illuminance [lx]

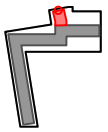
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.50 m	
Maximum I	: 190 cd	<= 2500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 15.96m x 1m (80 x 9 pts), Height = 0.00m					
1	2.18 lx	13.04 lx	1: 5.98	2.01 lx	13.04 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 1.34m x 1m (10 x 9 pts), Height = 0.00m					
2	1.46 lx	2.77 lx	1: 1.90	1.28 lx	2.83 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	





Type No.\Make

31 Corridor off Lobby

31.2 Summary, Corridor off Lobby

31.2.1.1 Result overview (emergency lighting)

Tridonic

3 1E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

16 2E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Escape Route (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 208 lm (0%)
Emergency : 208 lm

Hotel - Level 01

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	10.03.2025

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 take account of latest GAs / RCPs from Architect / Space Invaders. Also Emergency Lighting Review doc received from RF 07.02.2025.

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.

Table of contents

First Page 1
Table of contents 2
1 1.002 Gym
1.1 Summary, 1.002 Gym
1.1.1 Result overview, Evaluation area 1 5
1.2 Summary, 1.002 Gym
1.2.1.1 Result overview (emergency lighting) 7
2 1.003 Gym AWC
2.1 Summary, 1.003 Gym AWC
2.1.1 Result overview, Evaluation area 1 9
2.2 Summary, 1.003 Gym AWC
2.2.1.1 Result overview (emergency lighting) 10
3 1.004 Gym Male WC
3.1 Summary, 1.004 Gym Male WC
3.1.1 Result overview, Evaluation area 1 11
3.2 Summary, 1.004 Gym Male WC
3.2.1.1 Result overview (emergency lighting) 12
4 1.005 Gym Store
4.1 Summary, 1.005 Gym Store
4.1.1 Result overview, Evaluation area 1 13
5 1.006 GYM Female WC
5.1 Summary, 1.006 GYM Female WC
5.1.1 Result overview, Evaluation area 1 14
5.2 Summary, 1.006 GYM Female WC
5.2.1.1 Result overview (emergency lighting) 15
6 1.007 BOH Corridor
6.1 Summary, 1.007 BOH Corridor
6.1.1 Result overview, Evaluation area 1 16
6.2 Summary, 1.007 BOH Corridor
6.2.1.1 Result overview (emergency lighting) 17
7 1.008 Staff Changing and WC - Female
7.1 Summary, 1.008 Staff Changing and WC - Female
7.1.1 Result overview, Evaluation area 1 19
7.2 Summary, 1.008 Staff Changing and WC - Female
7.2.1.1 Result overview (emergency lighting) 20
8 1.009 Staff Changing and WC - Male
8.1 Summary, 1.009 Staff Changing and WC - Male
8.1.1 Result overview, Evaluation area 1 21
8.2 Summary, 1.009 Staff Changing and WC - Male
8.2.1.1 Result overview (emergency lighting) 22
9 1.010 Staff Changing and AWC
9.1 Summary, 1.010 Staff Changing and AWC
9.1.1 Result overview, Evaluation area 1 23
9.2 Summary, 1.010 Staff Changing and AWC
9.2.1.1 Result overview (emergency lighting) 24
10 1.011 LV Distribution
10.1 Summary, 1.011 LV Distribution
10.1.1 Result overview, Evaluation area 1 25
10.2 Summary, 1.011 LV Distribution
10.2.1.1 Result overview (emergency lighting) 26

Table of contents

11 1.012 MEP
11.1 Summary, 1.012 MEP
11.1.1 Result overview, Evaluation area 1 27
11.2 Summary, 1.012 MEP
11.2.1. Result overview (emergency lighting) 28
12 1.016 Staff Dining and Lounge
12.1 Summary, 1.016 Staff Dining and Lounge
12.1.1 Result overview, Evaluation area 1 29
12.2 Summary, 1.016 Staff Dining and Lounge
12.2.1. Result overview (emergency lighting) 30
13 1.017 Kitchen
13.1 Summary, 1.017 Kitchen
13.1.1 Result overview, Main Area 31
13.1.2 Result overview, Evaluation area 1 32
13.2 Summary, 1.017 Kitchen
13.2.1. Result overview (emergency lighting) 33
14 1.018 BOH Corridor
14.1 Summary, 1.018 BOH Corridor
14.1.1 Result overview, Evaluation area 1 35
14.2 Summary, 1.018 BOH Corridor
14.2.1. Result overview (emergency lighting) 36
15 1.024 Main Equipment Room (MER)
15.1 Summary, 1.024 Main Equipment Room (MER)
15.1.1 Result overview, Evaluation area 1 38
15.2 Summary, 1.024 Main Equipment Room (MER)
15.2.1. Result overview (emergency lighting) 39
16 1.025 Telecomms Room
16.1 Summary, 1.025 Telecomms Room
16.1.1 Result overview, Evaluation area 1 40
16.2 Summary, 1.025 Telecomms Room
16.2.1. Result overview (emergency lighting) 41
17 1.026 Wine Store
17.1 Summary, 1.026 Wine Store
17.1.1 Result overview, Evaluation area 1 42
18 1.028 All Day Dining and Bar (i)
18.1 Summary, 1.028 All Day Dining and Bar (i)
18.1.1 Result overview, Evaluation area 1 43
18.2 Summary, 1.028 All Day Dining and Bar (i)
18.2.1. Result overview (emergency lighting) 44
19 1.028 All Day Dining and Bar (ii)
19.1 Summary, 1.028 All Day Dining and Bar (ii)
19.1.1 Result overview, Evaluation area 1 45
19.2 Summary, 1.028 All Day Dining and Bar (ii)
19.2.1. Result overview (emergency lighting) 47
20 1.028 All Day Dining and Bar (iii)
20.1 Summary, 1.028 All Day Dining and Bar (iii)
20.1.1 Result overview, Evaluation area 1 49
20.2 Summary, 1.028 All Day Dining and Bar (iii)
20.2.1. Result overview (emergency lighting) 50
21 1.029 All Day Dining WC

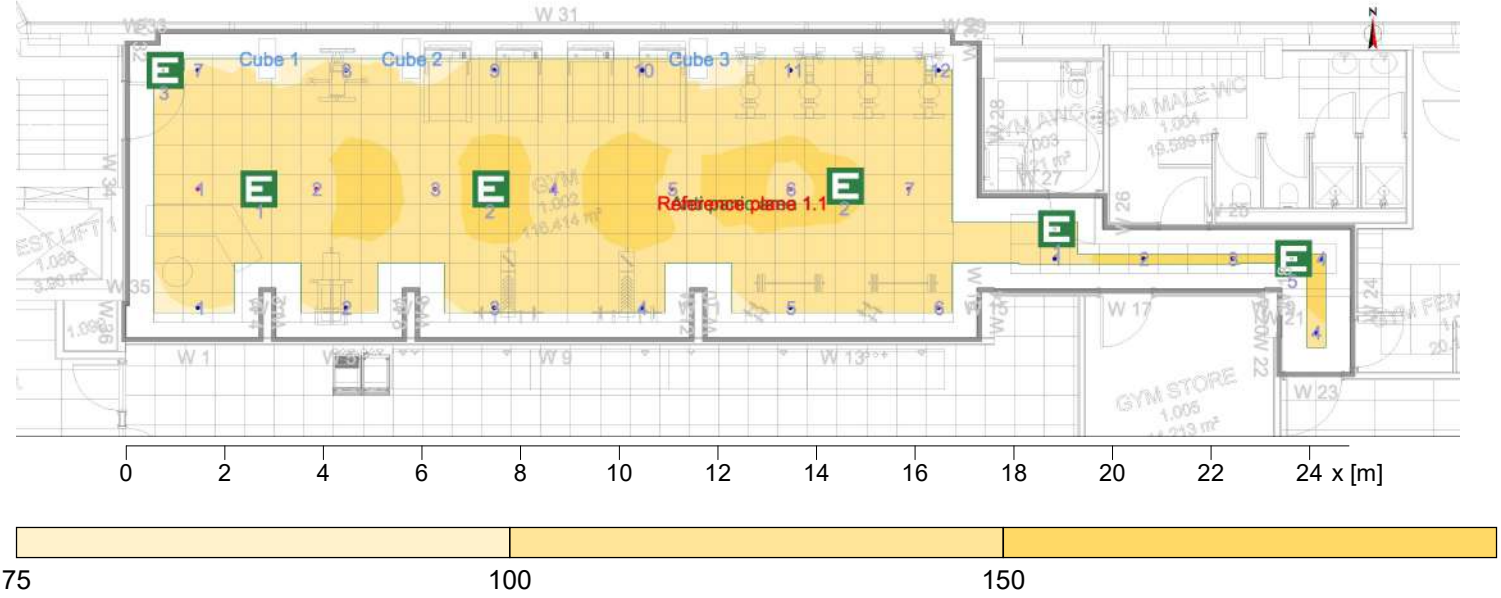
Table of contents

21.1 Summary, 1.029 All Day Dining WC
21.1.1 Result overview, Evaluation area 1 52
21.2 Summary, 1.029 All Day Dining WC
21.2.1.1 Result overview (emergency lighting) 53
22 1.030 All Day Dining WC
22.1 Summary, 1.030 All Day Dining WC
22.1.1 Result overview, Evaluation area 1 54
22.2 Summary, 1.030 All Day Dining WC
22.2.1.1 Result overview (emergency lighting) 55
23 1.034 Kitchen Office
23.1 Summary, 1.034 Kitchen Office
23.1.1 Result overview, Evaluation area 1 56

1 1.002 Gym

1.1 Summary, 1.002 Gym

1.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.10 m
Maintenance factor	0.80
Luminaire luminous flux	25184 lm
Total power	336.0 W
Total power per area (117.09 m²)	2.87 W/m² (2.11 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	136 lx
E_{min}	93 lx
$E_{min}/\bar{E}_m$ (U_o)	0.69
E_{min}/E_{max} (U_d)	0.51
Position	0.00 m

Type No.\Make

		Chiara Lighting Limited
11	17 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 1.002 Gym

1.1 Summary, 1.002 Gym

1.1.1 Result overview, Evaluation area 1

12 7 x

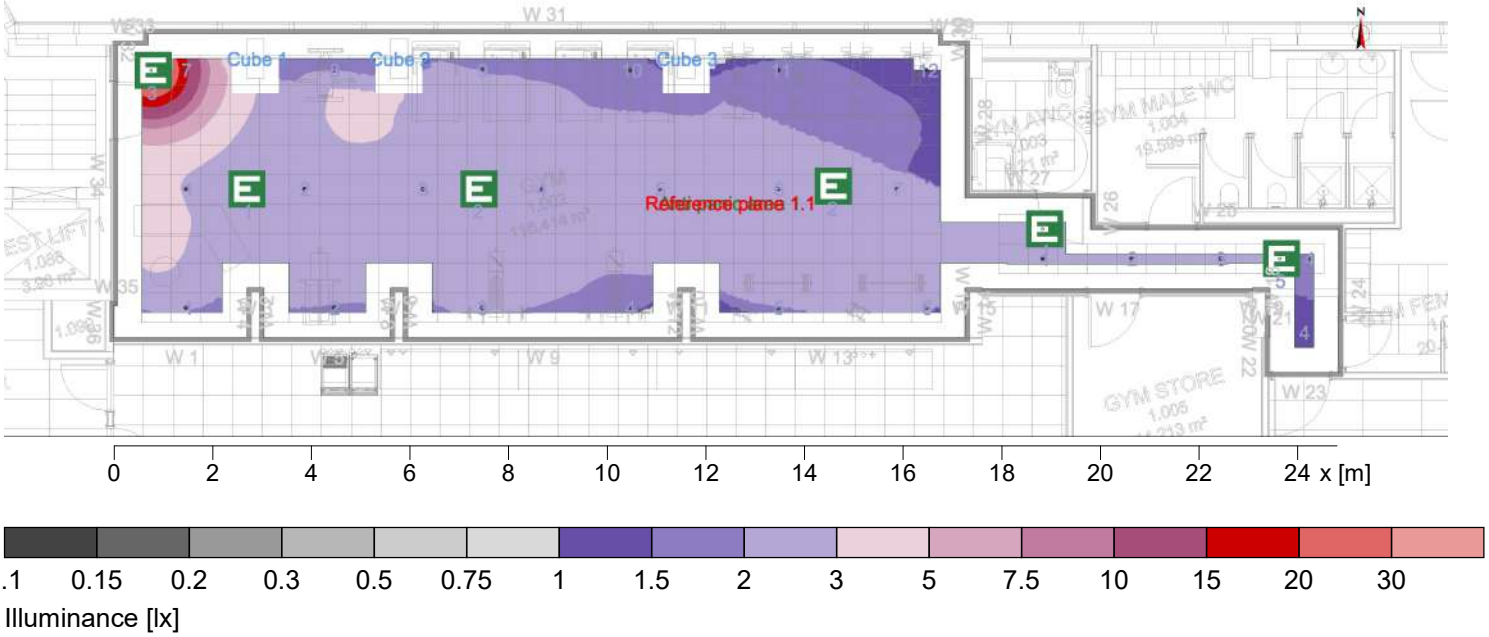


Order No. : !APRF.X.X LE5.27.14.50.X
Luminaire name : Arch Pro Round Fixed, 927.14W.50d
Equipment : 1 x 2700K 14 W / 943 lm

1 1.002 Gym

1.2 Summary, 1.002 Gym

1.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.10 m	
Maximum I	: 600 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 23.73m x 5.84m (35 x 9 pts), Height = 0.00m			
1	0.79 lx	29.71 lx	1: 37.41
	>= 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	5.41 lx	5.94 lx
	>= 5 lx	



1 1.002 Gym

1.2 Summary, 1.002 Gym

1.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

3 5E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

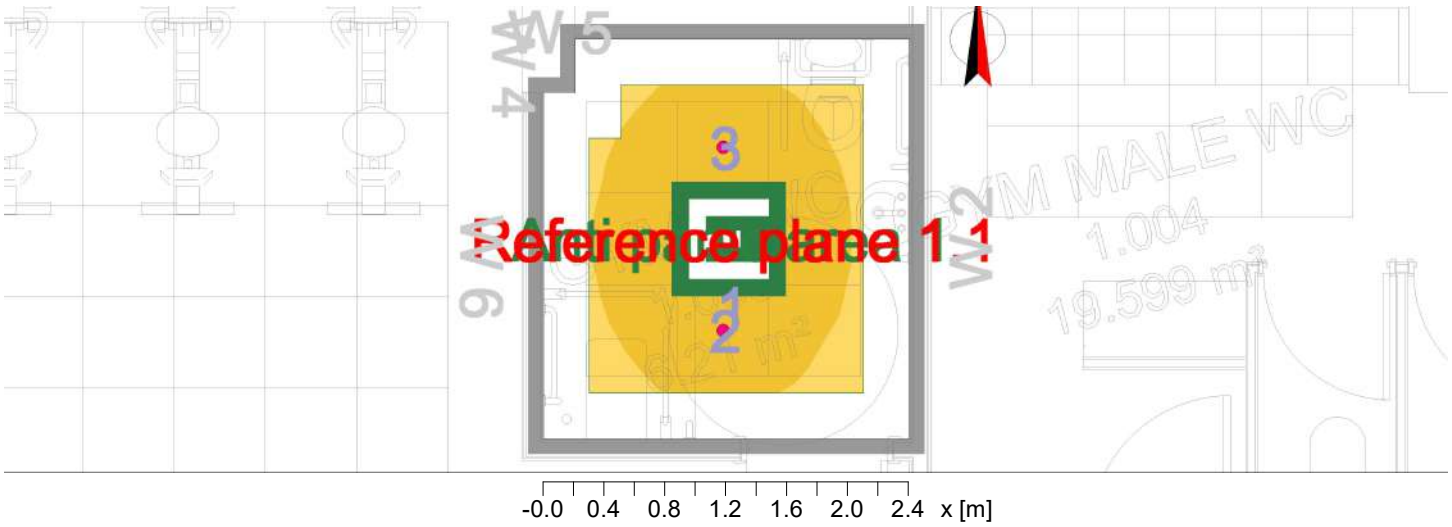
16 1E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

2 1.003 Gym AWC

2.1 Summary, 1.003 Gym AWC

2.1.1 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
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.21 m²)	4.51 W/m² (1.89 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	239 lx
E_{min}	171 lx
$E_{min}/\bar{E}_m$ (U_o)	0.72
E_{min}/E_{max} (U_d)	0.56
Position	0.00 m (rot: 0°/0°)

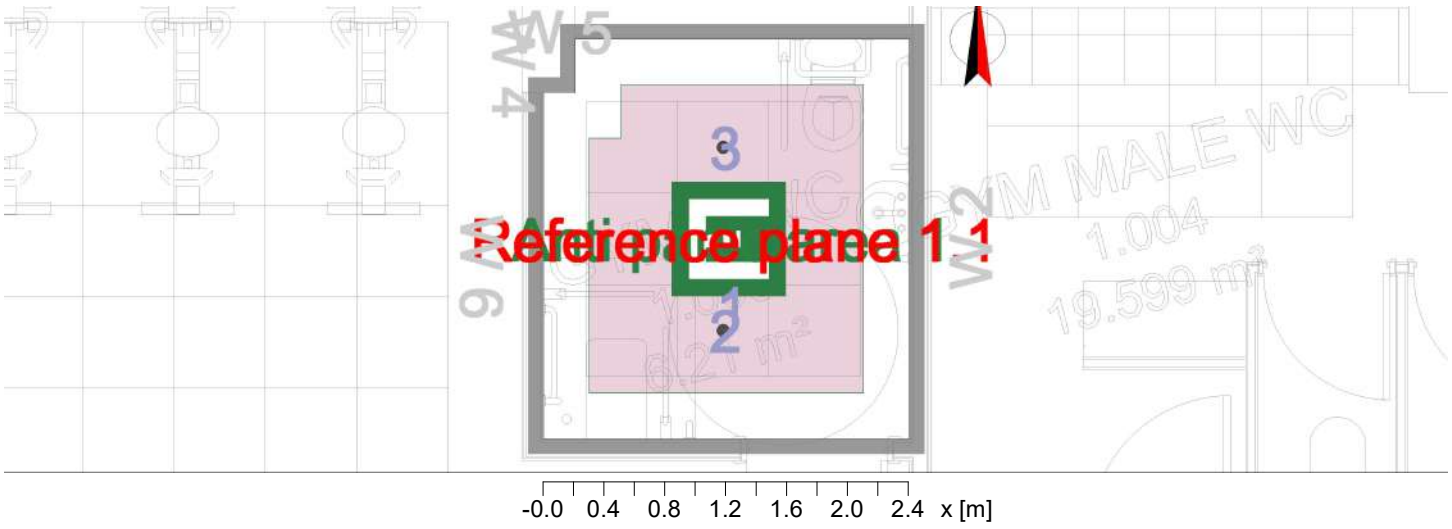
Type No.\Make

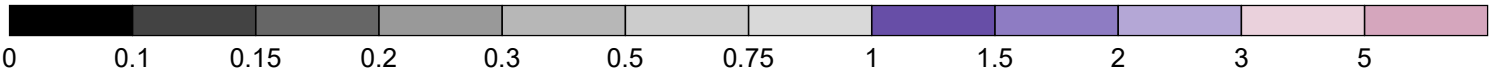
		Chiara Lighting Limited
9	2 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

2 1.003 Gym AWC

2.2 Summary, 1.003 Gym AWC

2.2.1.1 Result overview (emergency lighting)



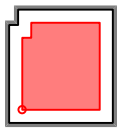


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.60 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.8m x 2.02m (6 x 6 pts), Height = 0.00m			
1	3.12 lx	3.47 lx	1: 1.11
	>= 0.5 lx		>= 1 : 40



Type No.\Make

		Tridonic	
3	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

3 1.004 Gym Male WC

3.1 Summary, 1.004 Gym Male WC

3.1.1 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
Luminaire luminous flux	5247 lm
Total power	70.0 W
Total power per area (13.42 m²)	5.22 W/m² (2.21 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	236 lx
E_{min}	150 lx
$E_{min}/\bar{E}_m$ (U_o)	0.64
E_{min}/E_{max} (U_d)	0.45
Position	0.00 m

Type No.\Make

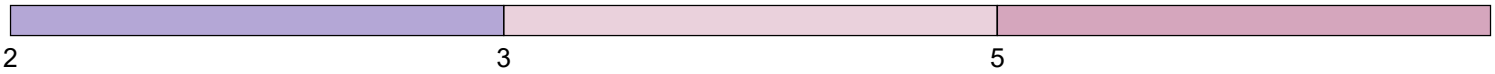
	Chiara Lighting Limited	
9	5 x	Order No. : !APRF.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Fixed, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 943 lm

3 1.004 Gym Male WC

3.2 Summary, 1.004 Gym Male WC

3.2.1.1 Result overview (emergency lighting)





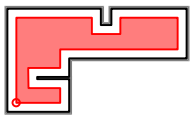
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.60 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.41m x 2.86m (19 x 10 pts), Height = 0.00m			
1	2.83 lx	7.26 lx	1: 2.56
	>= 0.5 lx		>= 1 : 40



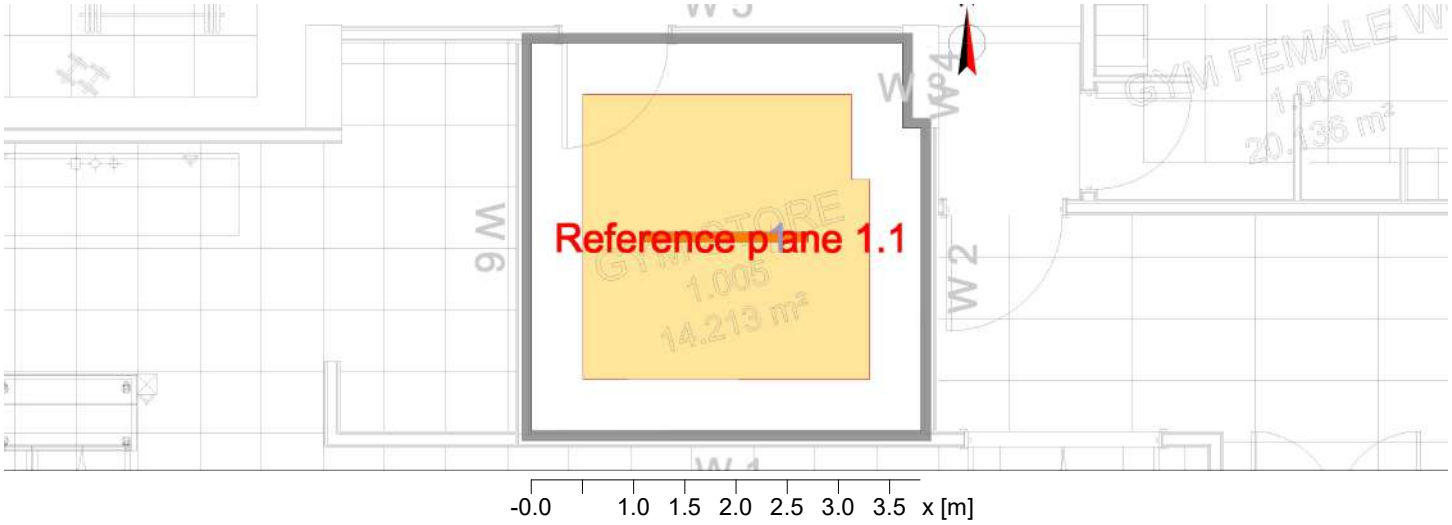
Type No.\Make

		Tridonic	
3	3E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

4 1.005 Gym Store

4.1 Summary, 1.005 Gym Store

4.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	6610 lm
Luminaire luminous flux	6608 lm
Total power	47.9 W
Total power per area (14.18 m²)	3.38 W/m² (2.90 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	117 lx
E_{min}	101 lx
$E_{min}/\bar{E}_m$ (U_o)	0.87
E_{min}/E_{max} (U_d)	0.78
Position	0.00 m (rot: 0°/0.02°)

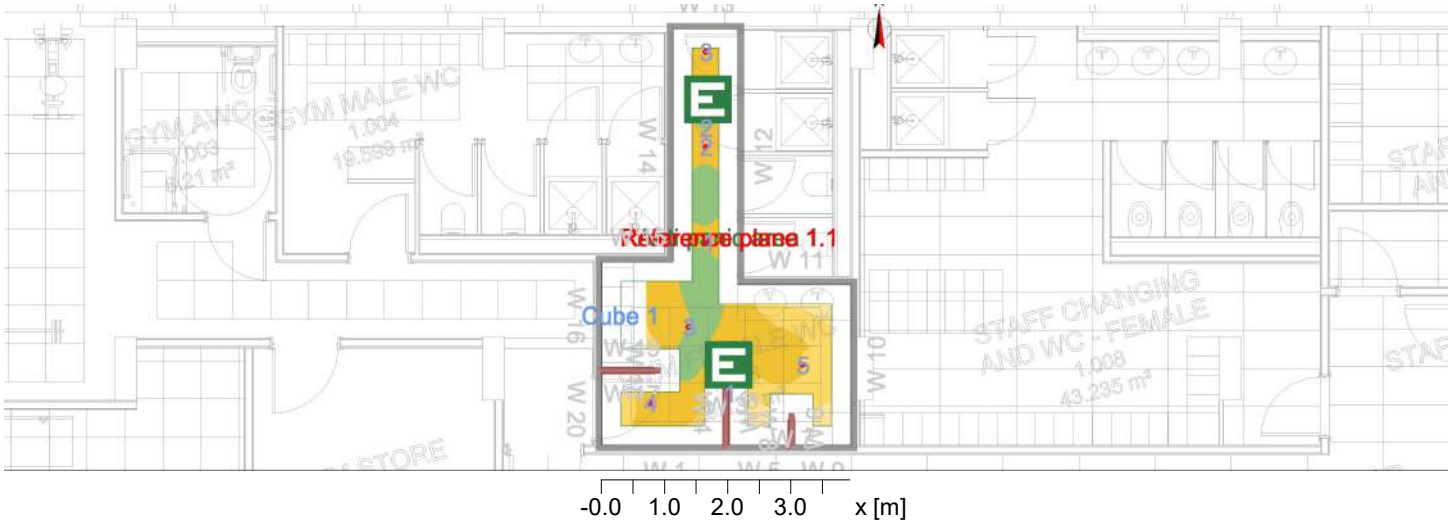
Type No.\Make

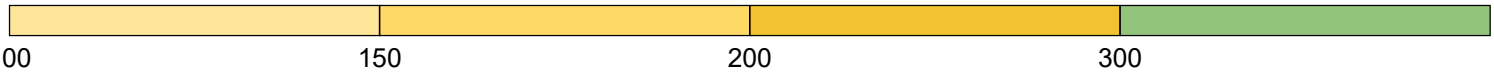
		Thorn	
2	1 x	Order No.	: 92902358
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

5 1.006 GYM Female WC

5.1 Summary, 1.006 GYM Female WC

5.1.1 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
Luminaire luminous flux	6296 lm
Total power	84.0 W
Total power per area (14.28 m²)	5.88 W/m² (2.36 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	249 lx
E_{min}	124 lx
$E_{min}/\bar{E}_m$ (U_o)	0.50
E_{min}/E_{max} (U_d)	0.38
Position	0.00 m (rot: 0°/0°)

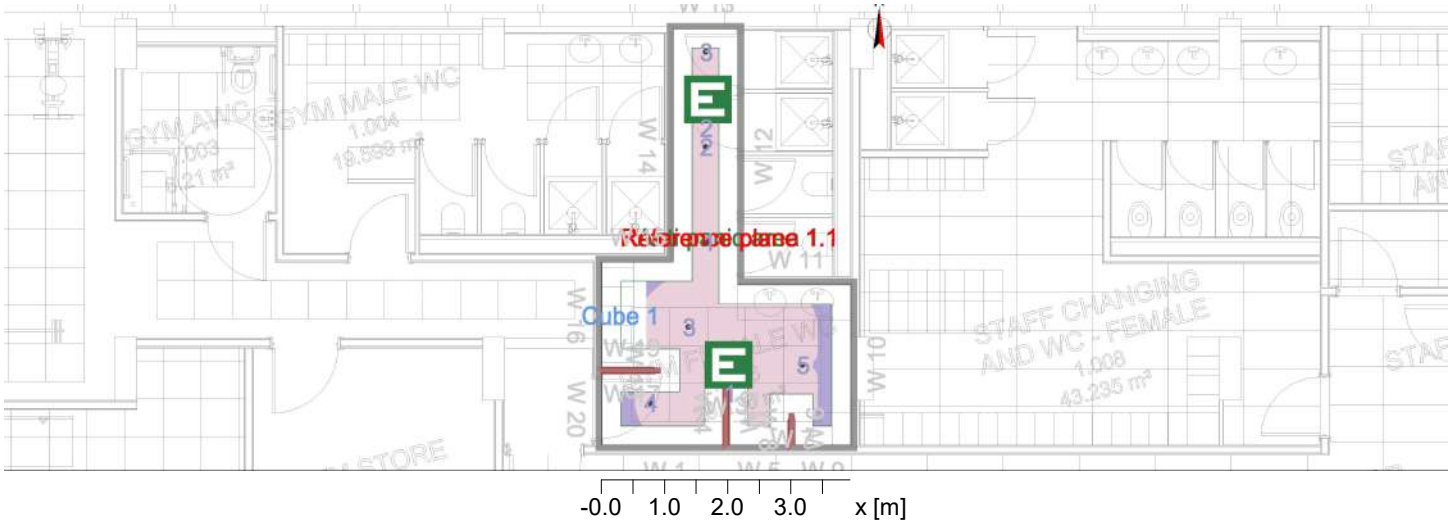
Type No.\Make

		Chiara Lighting Limited	
9	6 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 1.006 GYM Female WC

5.2 Summary, 1.006 GYM Female WC

5.2.1.1 Result overview (emergency lighting)





2 3

Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.60 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 3.33m x 5.96m (11 x 20 pts), Height = 0.00m			
1	2.56 lx	4.89 lx	1: 1.91
	>= 0.5 lx		>= 1 : 40



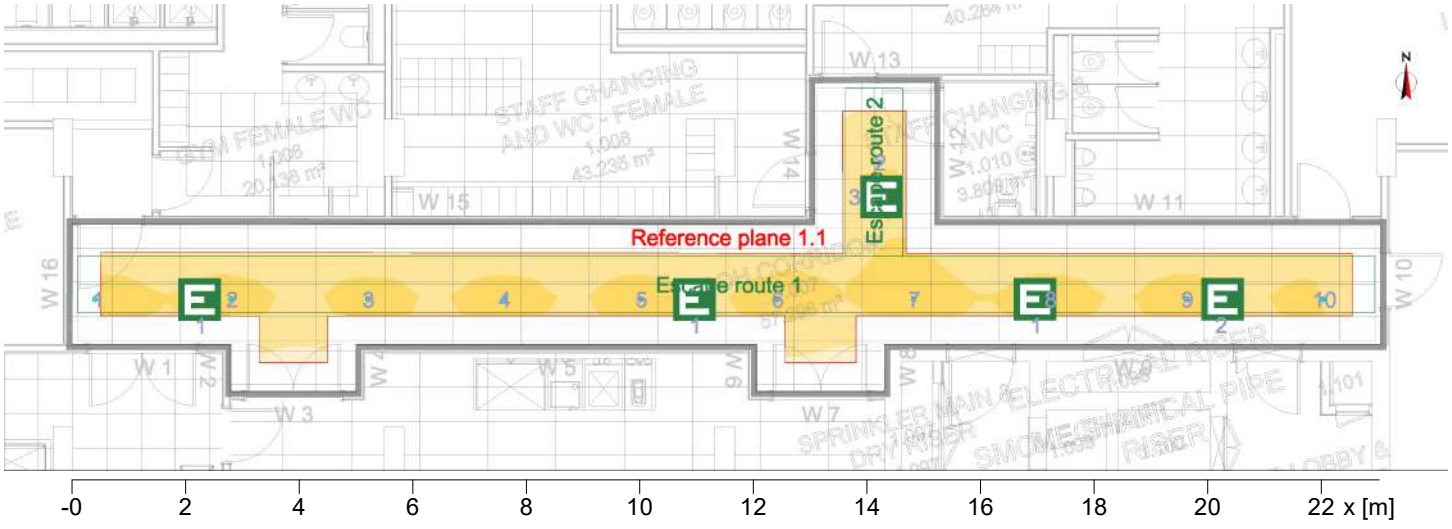
Type No.\Make

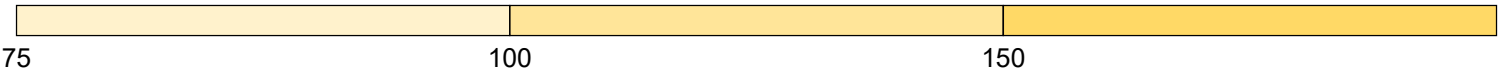
		Tridonic	
3	2E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

6 1.007 BOH Corridor

6.1 Summary, 1.007 BOH Corridor

6.1.1 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	11543 lm
Total power	154.0 W
Total power per area (57.40 m²)	2.68 W/m² (1.85 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	145 lx
E_{min}	86 lx
$E_{min}/\bar{E}_m$ (U_o)	0.59
E_{min}/E_{max} (U_d)	0.52
Position	0.00 m (rot: 0°/0.03°)

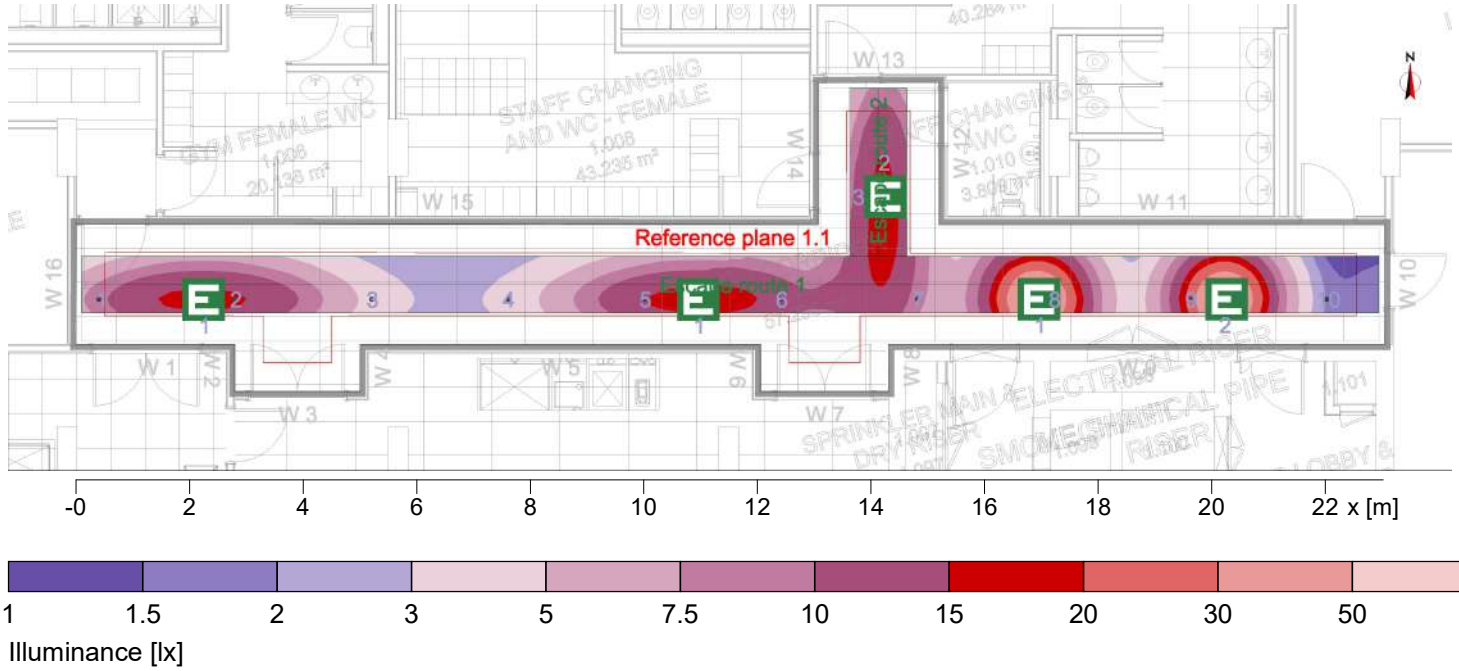
Type No.\Make

		Chiara Lighting Limited
4	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

6 1.007 BOH Corridor

6.2 Summary, 1.007 BOH Corridor

6.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 600 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 22.82m x 1m (114 x 9 pts), Height = 0.00m					
1	1.54 lx	47.35 lx	1: 30.75	1.24 lx	56.39 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 2.95m x 1m (15 x 9 pts), Height = 0.00m					
2	8.22 lx	17.16 lx	1: 2.09	4.83 lx	17.56 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	

Places to highlight

No.	Surface Emin [lx]	Emax [lx]

6 1.007 BOH Corridor

6.2 Summary, 1.007 BOH Corridor

6.2.1.1 Result overview (emergency lighting)

1 Call Point (i)

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

1	5.43 lx	6.01 lx
	>= 5 lx	



2 Call Point (ii)

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

2	5.03 lx	5.56 lx
	>= 5 lx	



Type No.\Make

Tridonic

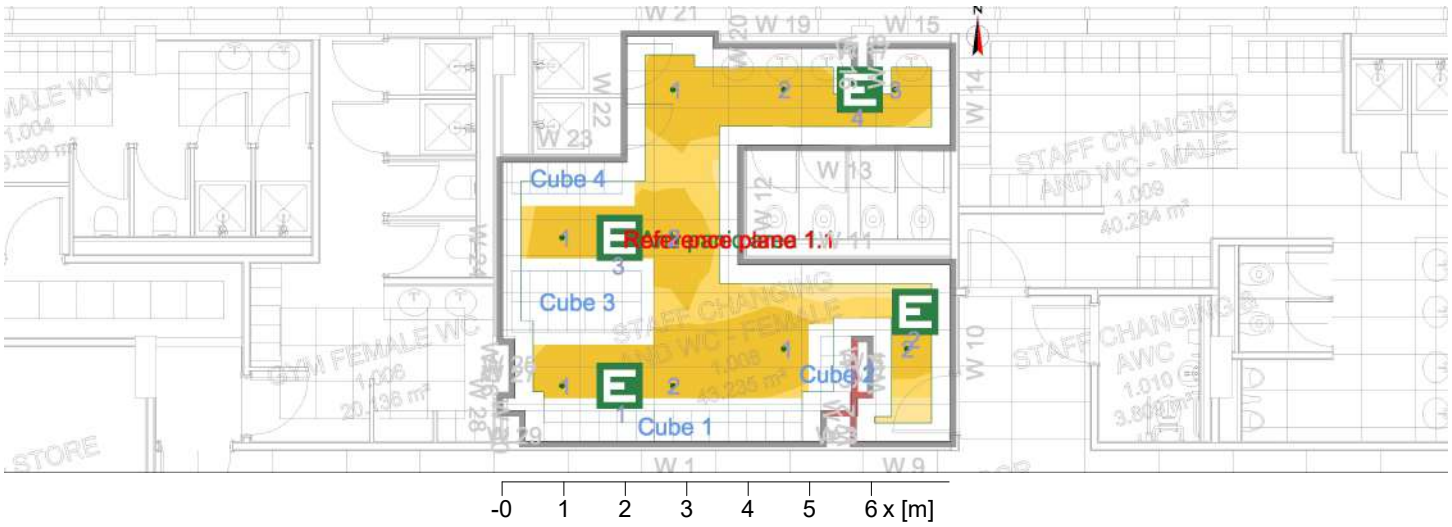
5 3E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Escape Route (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 208 lm (0%)
Emergency : 208 lm

16 2E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

7 1.008 Staff Changing and WC - Female

7.1 Summary, 1.008 Staff Changing and WC - Female

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	10385 lm
Total power	126.0 W
Total power per area (34.93 m²)	3.61 W/m² (1.62 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	223 lx
E_{min}	143 lx
$E_{min}/\bar{E}_m$ (U_o)	0.64
E_{min}/E_{max} (U_d)	0.53
Position	0.00 m

Type No.\Make

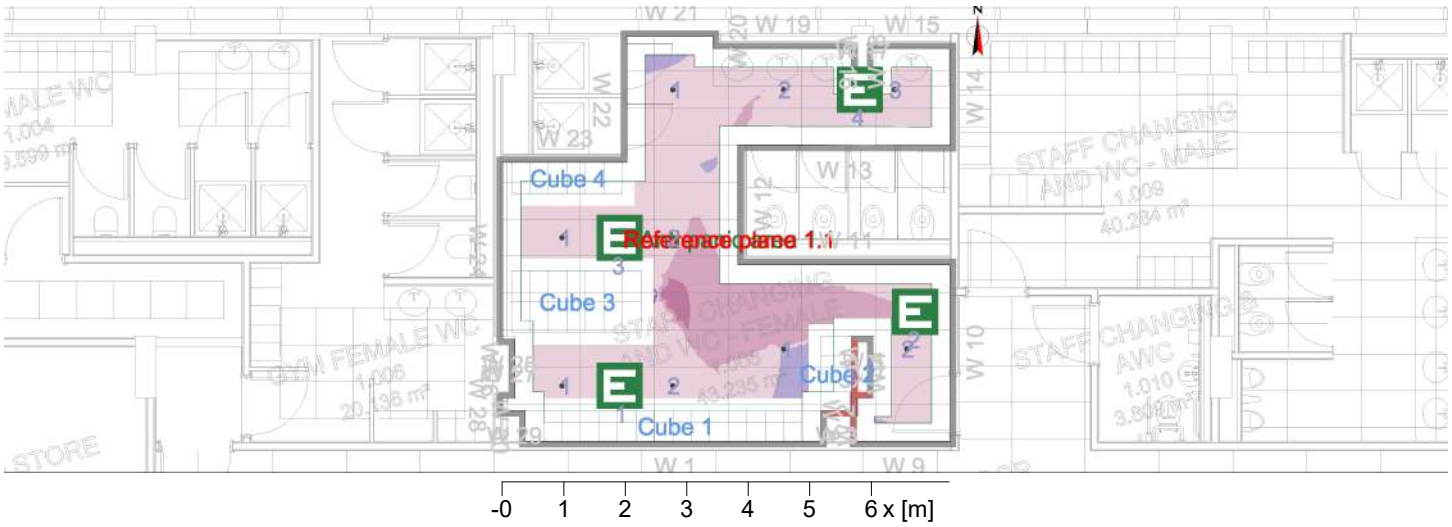
8 9 x

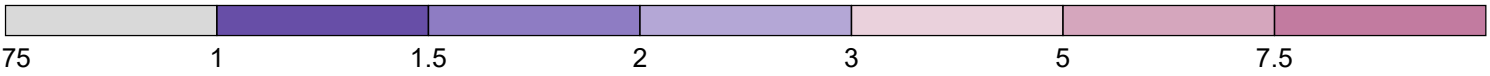
Chiara Lighting Limited
Order No. : !APRF.X.X LE5.40.14.50.X
Luminaire name : Arch Pro Round Fixed, 940.14W.50d
Equipment : 1 x 4000k 14 W / 1037 lm

7 1.008 Staff Changing and WC - Female

7.2 Summary, 1.008 Staff Changing and WC - Female

7.2.1.1 Result overview (emergency lighting)



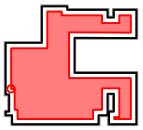


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 53 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 6.66m x 5.96m (9 x 8 pts), Height = 0.00m			
1	0.77 lx	8.03 lx	1: 10.48
	>= 0.5 lx		>= 1 : 40



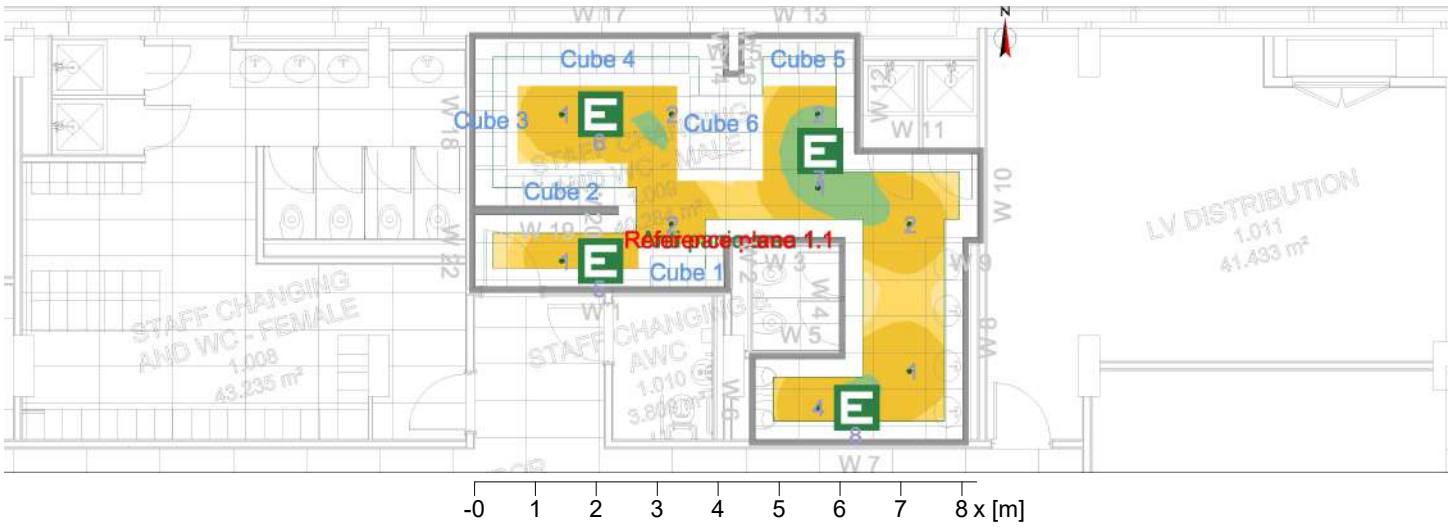
Type No.\Make

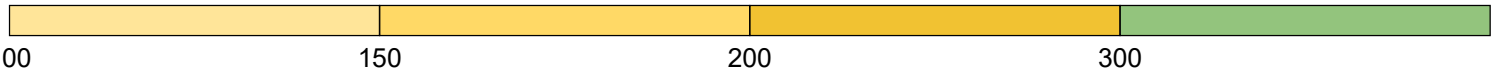
		Tridonic	
3	4E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

8 1.009 Staff Changing and WC - Male

8.1 Summary, 1.009 Staff Changing and WC - Male

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
Luminaire luminous flux	10385 lm
Total power	126.0 W
Total power per area (34.12 m²)	3.69 W/m² (1.45 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	254 lx
E_{min}	122 lx
$E_{min}/\bar{E}_m$ (U_o)	0.48
E_{min}/E_{max} (U_d)	0.31
Position	0.00 m

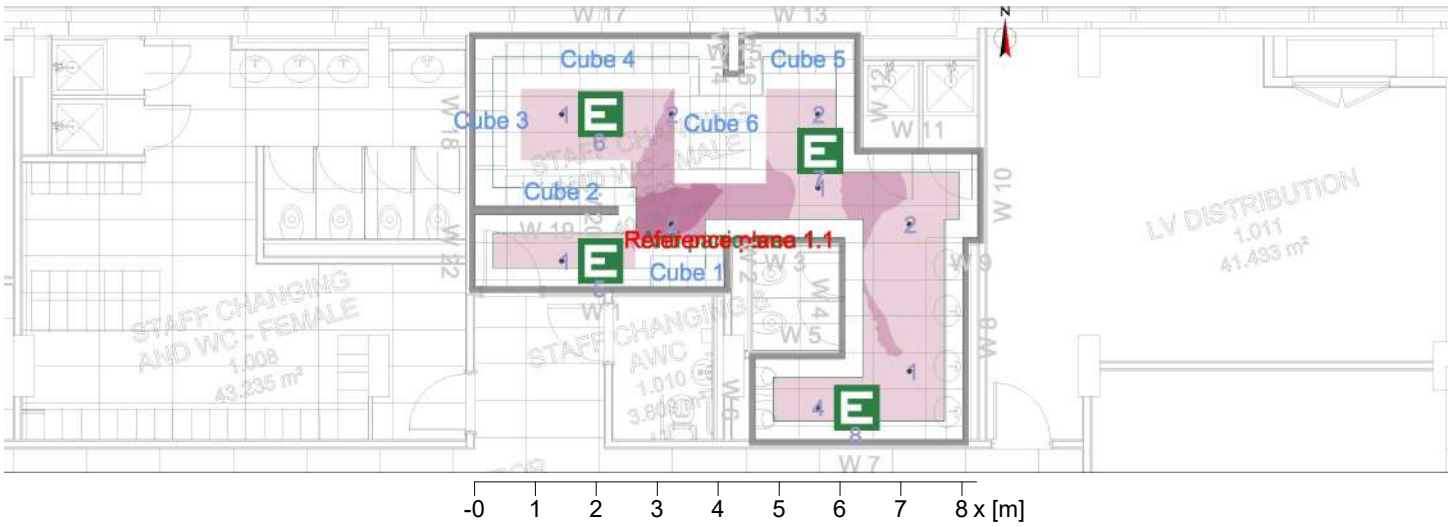
Type No.\Make

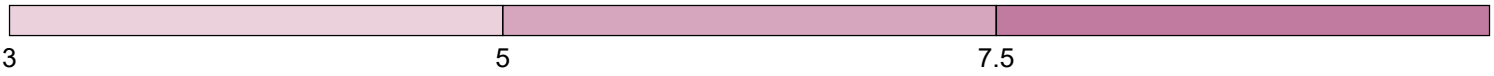
		Chiara Lighting Limited
8	9 x	Order No. : !APRF.X.X LE5.40.14.50.X
		Luminaire name : Arch Pro Round Fixed, 940.14W.50d
		Equipment : 1 x 4000k 14 W / 1037 lm

8 1.009 Staff Changing and WC - Male

8.2 Summary, 1.009 Staff Changing and WC - Male

8.2.1.1 Result overview (emergency lighting)





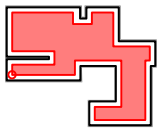
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 53 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 7.64m x 5.96m (23 x 18 pts), Height = 0.00m			
1	3.01 lx	8.69 lx	1: 2.89
	>= 0.5 lx		>= 1 : 40



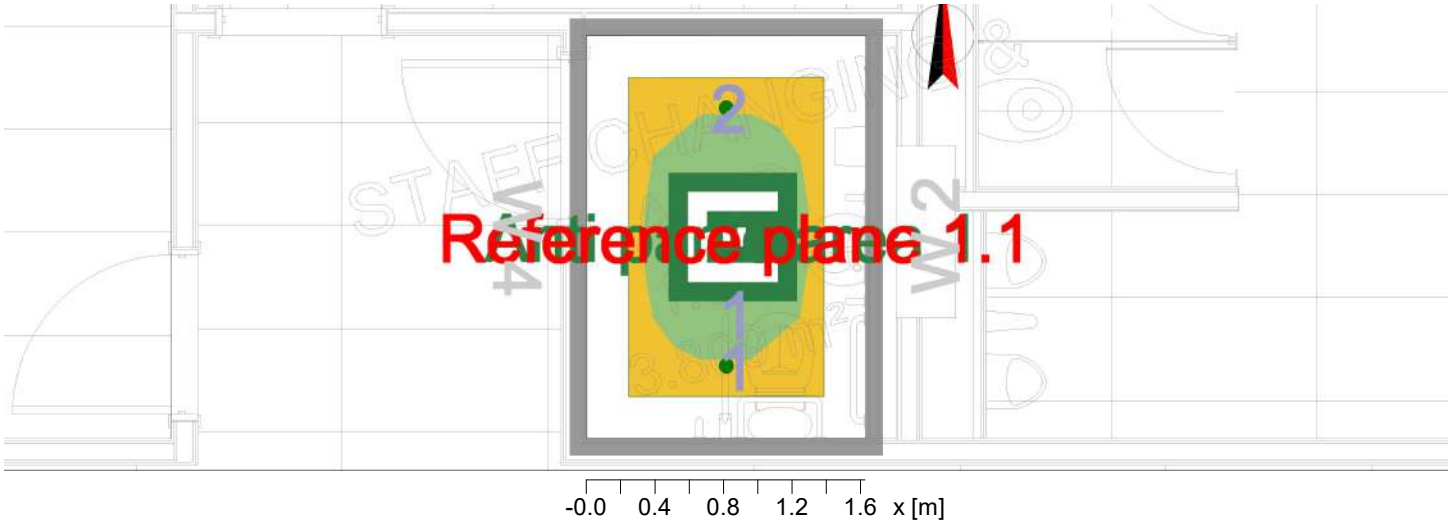
Type No.\Make

		Tridonic	
3	4E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

9 1.010 Staff Changing and AWC

9.1 Summary, 1.010 Staff Changing and AWC

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
Luminaire luminous flux	2308 lm
Total power	28.0 W
Total power per area (3.81 m²)	7.35 W/m² (2.37 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	310 lx
E_{min}	280 lx
$E_{min}/\bar{E}_m$ (U_o)	0.90
E_{min}/E_{max} (U_d)	0.80
Position	0.00 m

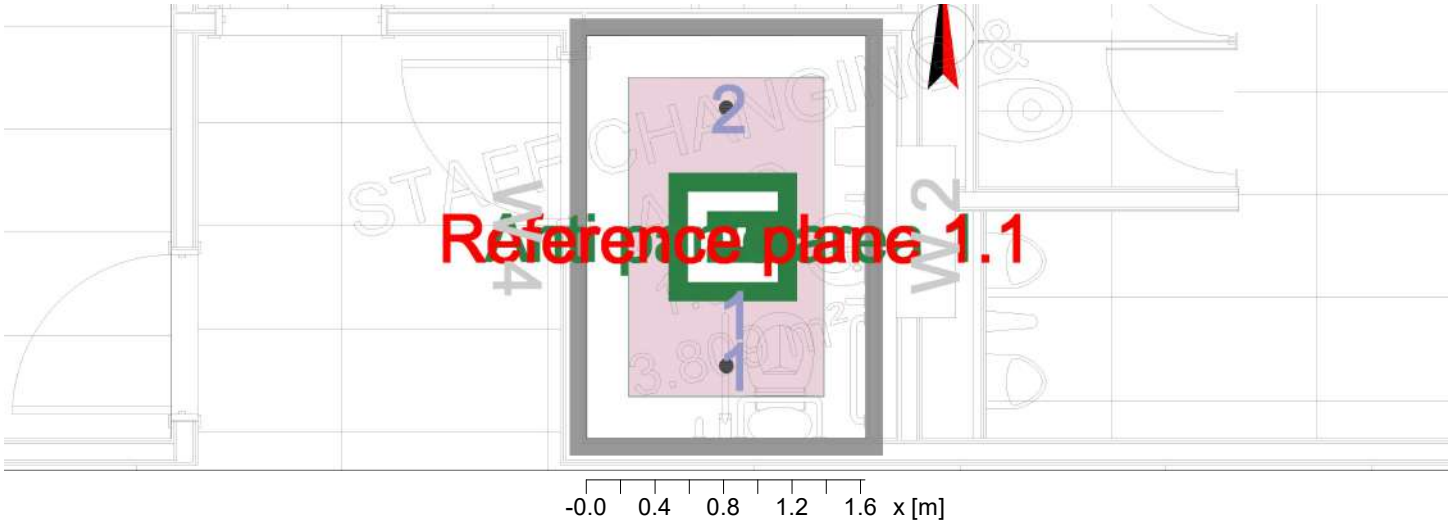
Type No.\Make

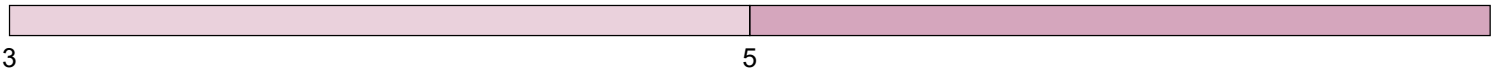
		Chiara Lighting Limited
8	2 x	Order No. : !APRF.X.X LE5.40.14.50.X
		Luminaire name : Arch Pro Round Fixed, 940.14W.50d
		Equipment : 1 x 4000k 14 W / 1037 lm

9 1.010 Staff Changing and AWC

9.2 Summary, 1.010 Staff Changing and AWC

9.2.1.1 Result overview (emergency lighting)





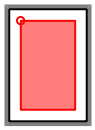
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.40 m	
Maximum I	: 53 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.14m x 1.86m (4 x 6 pts), Height = 0.00m			
1	3.66 lx	4.07 lx	1: 1.11
	>= 0.5 lx		>= 1 : 40



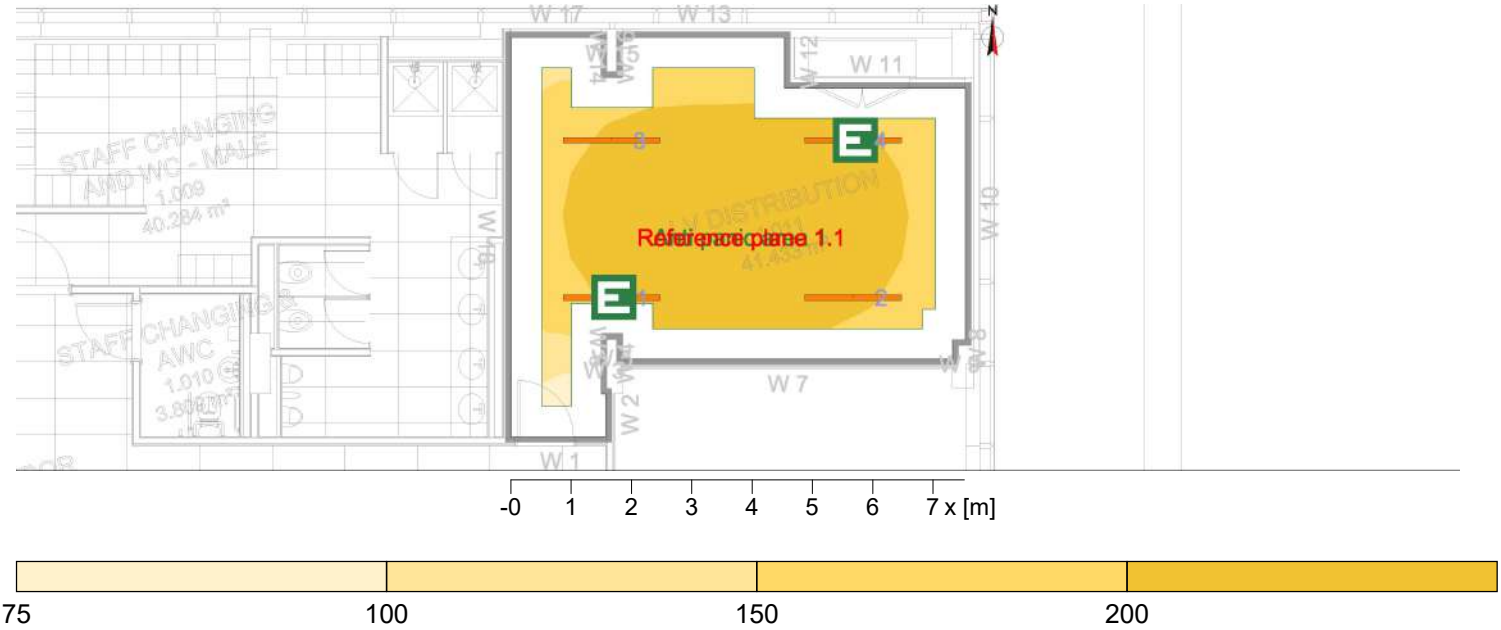
Type No.\Make

		Tridonic	
3	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

10 1.011 LV Distribution

10.1 Summary, 1.011 LV Distribution

10.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	26440 lm
Luminaire luminous flux	26433 lm
Total power	191.6 W
Total power per area (38.99 m²)	4.91 W/m² (2.34 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	210 lx
E_{min}	84 lx
$E_{min}/\bar{E}_m$ (U_o)	0.40
E_{min}/E_{max} (U_d)	0.35
Position	0.00 m

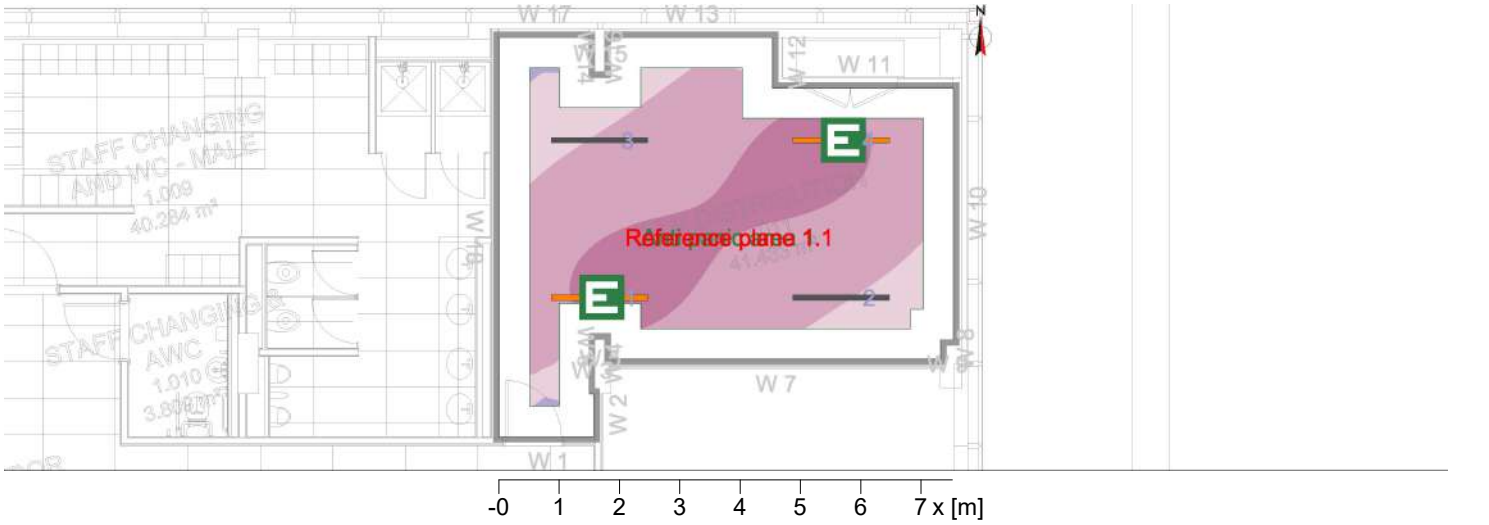
Type No.\Make

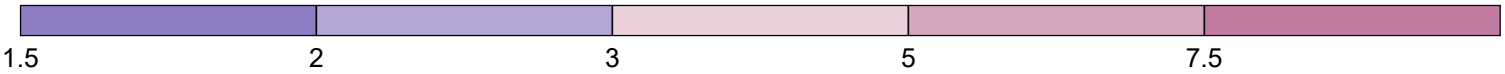
		Thorn	
2	4E x	Order No.	: 92902358
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

10 1.011 LV Distribution

10.2 Summary, 1.011 LV Distribution

10.2.1.1 Result overview (emergency lighting)





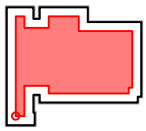
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 6.52m x 5.6m (9 x 8 pts), Height = 0.00m			
1	1.93 lx	8.03 lx	1: 4.17
	>= 0.5 lx		>= 1 : 40



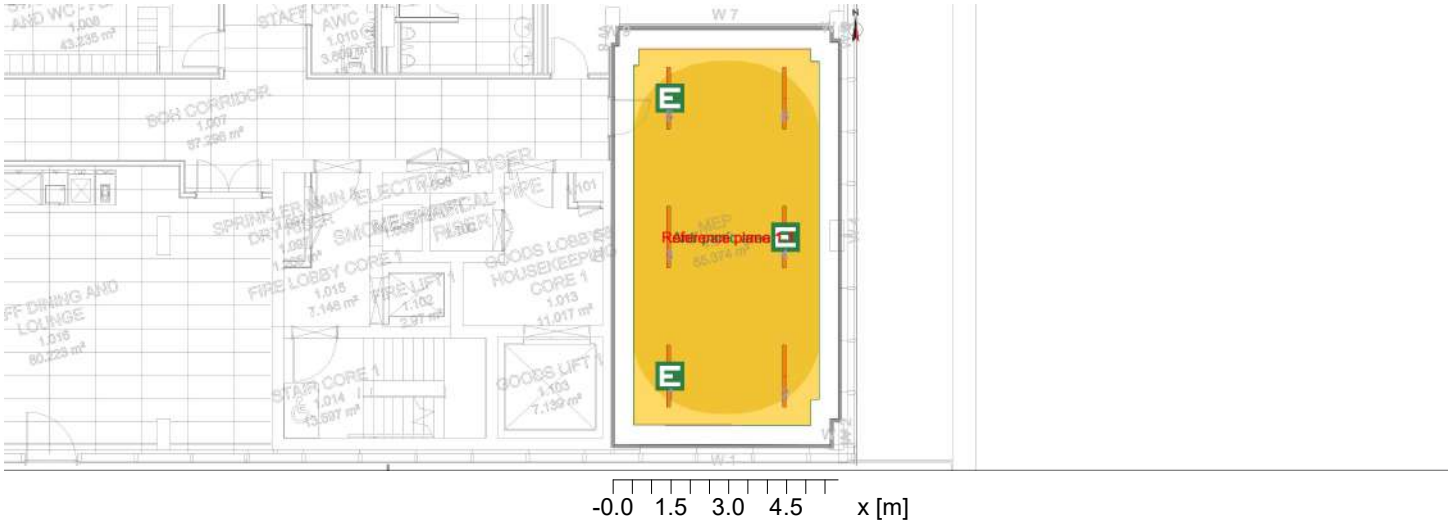
Type No.\Make

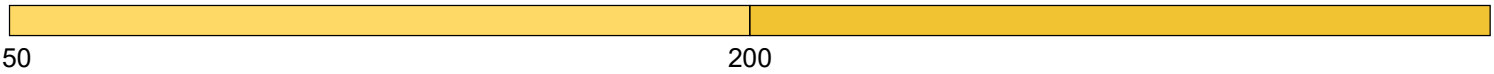
		Thorn	
2	2E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

11 1.012 MEP

11.1 Summary, 1.012 MEP

11.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.50 m
Maintenance factor	0.80
Total lamp luminous flux	39660 lm
Luminaire luminous flux	39650 lm
Total power	287.4 W
Total power per area (62.04 m²)	4.63 W/m² (1.98 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	234 lx
E_{min}	172 lx
$E_{min}/\bar{E}_m$ (U_o)	0.74
E_{min}/E_{max} (U_d)	0.63
Position	0.00 m

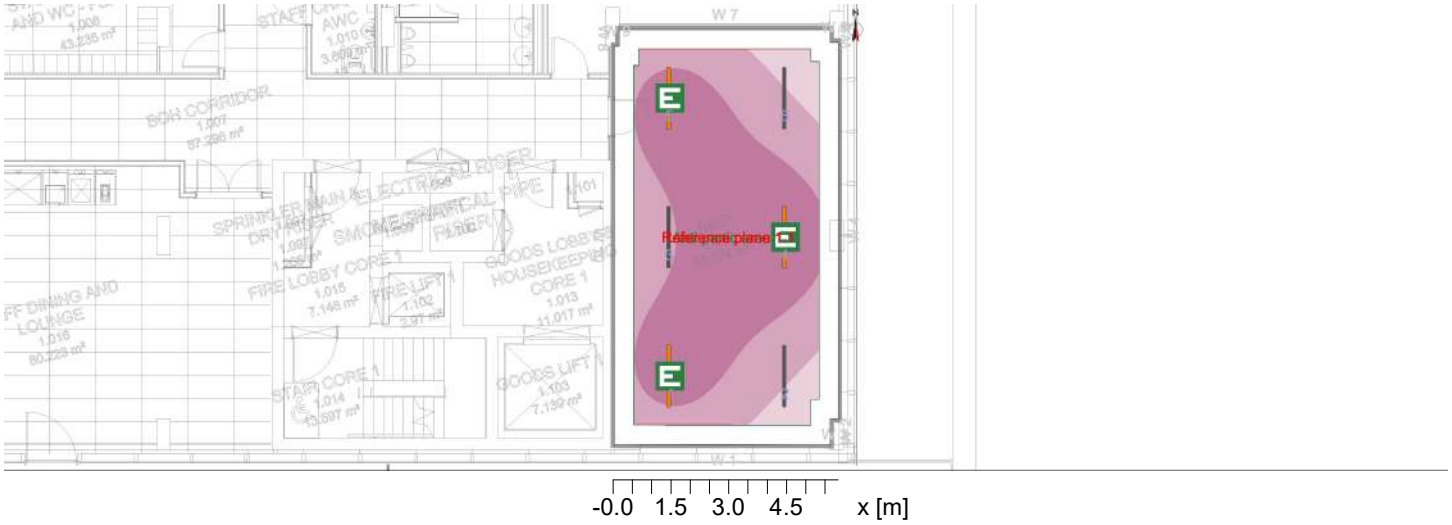
Type No.\Make

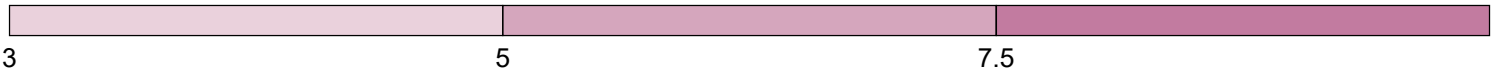
		Thorn	
2	6E x	Order No.	: 92902358
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

11 1.012 MEP

11.2 Summary, 1.012 MEP

11.2.1.1 Result overview (emergency lighting)





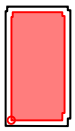
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.43 m	
Maximum I	: 170 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 4.82m x 9.74m (8 x 16 pts), Height = 0.00m			
1	3.19 lx	9.41 lx	1: 2.95
	>= 0.5 lx		>= 1 : 40



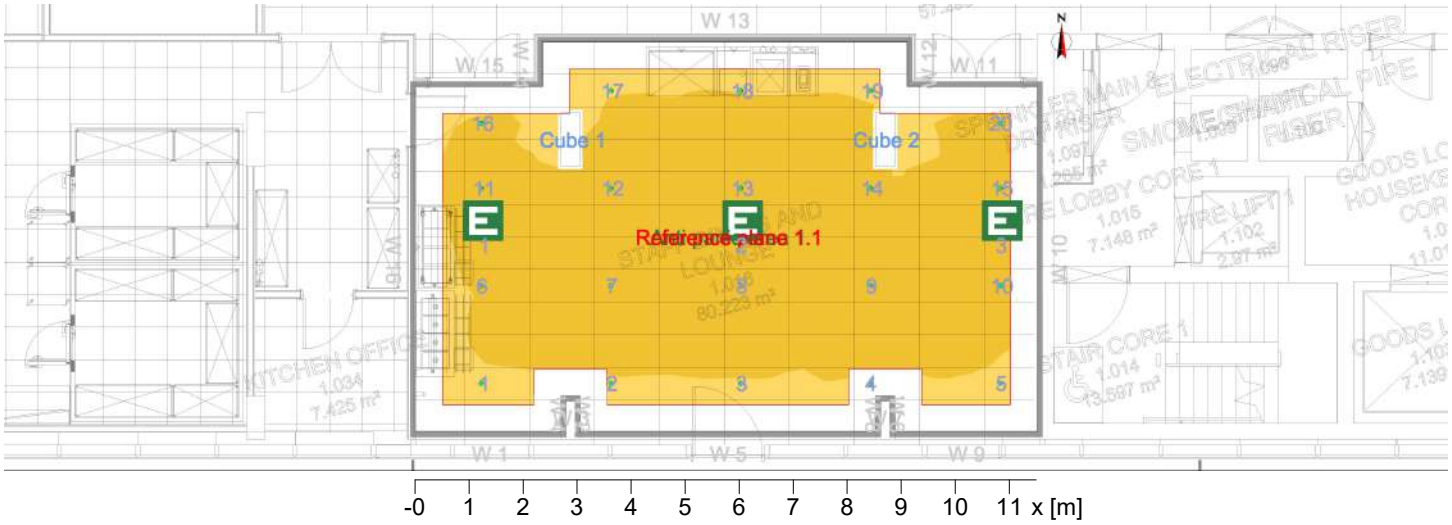
Type No.\Make

		Thorn	
2	3E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

12 1.016 Staff Dining and Lounge

12.1 Summary, 1.016 Staff Dining and Lounge

12.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.16 m
Maintenance factor	0.80
Luminaire luminous flux	23078 lm
Total power	280.0 W
Total power per area (78.38 m²)	3.57 W/m² (1.61 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	221 lx
E_{min}	169 lx
$E_{min}/\bar{E}_m$ (U_o)	0.76
E_{min}/E_{max} (U_d)	0.64
Position	0.75 m (rot: 0°/0°)

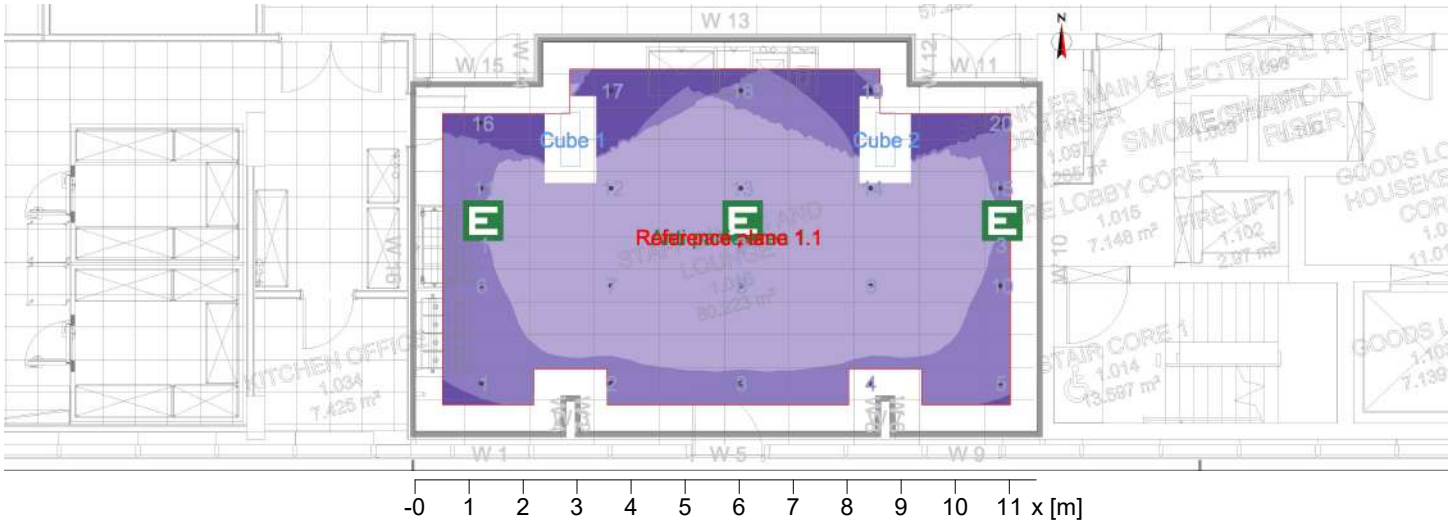
Type No.\Make

		Chiara Lighting Limited
6	20 x	Order No. : !APRF.X.X LE5.40.14.50.X
		Luminaire name : Arch Pro Round Fixed, 940.14W.50d
		Equipment : 1 x 4000k 14 W / 1037 lm

12 1.016 Staff Dining and Lounge

12.2 Summary, 1.016 Staff Dining and Lounge

12.2.1.1 Result overview (emergency lighting)



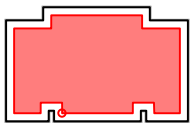


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.16 m	
Maximum I	: 53 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 10.5m x 6.2m (10 x 6 pts), Height = 0.00m			
1	0.96 lx	2.60 lx	1: 2.71
	>= 0.5 lx		>= 1 : 40



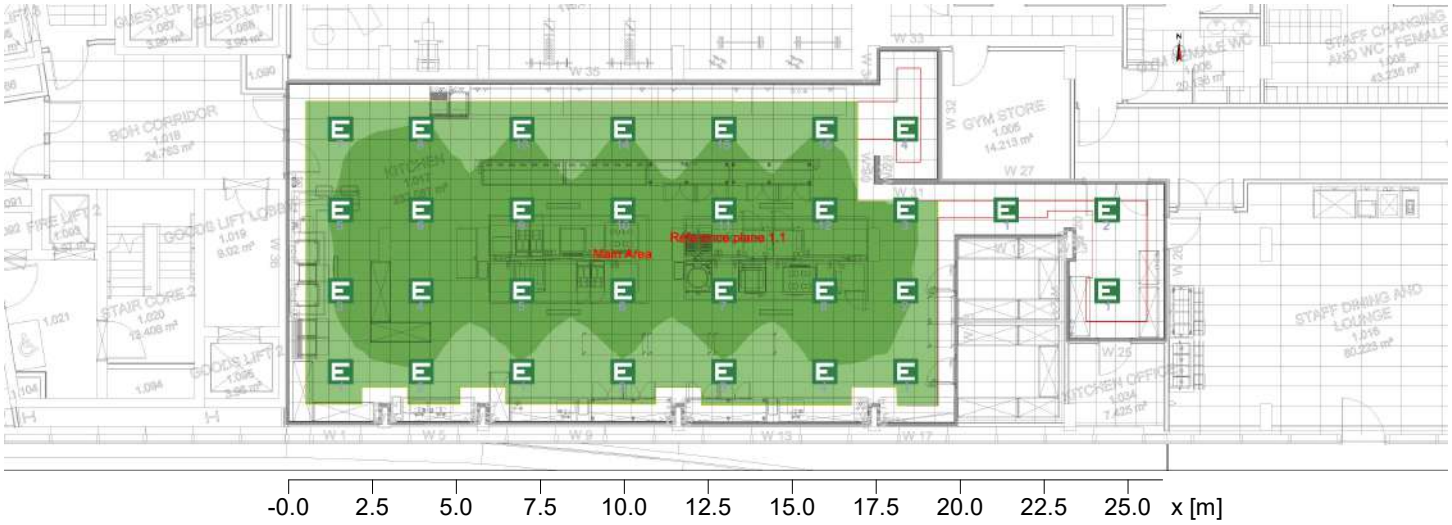
Type No.\Make

		Tridonic	
3	3E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

13 1.017 Kitchen

13.1 Summary, 1.017 Kitchen

13.1.1 Result overview, Main Area





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.30 m
Maintenance factor	0.80
Total luminous flux	143530 lm
Total power	970.3 W
Total power per area (215.06 m²)	4.51 W/m² (0.90 W/m²/100lx)

Illuminance

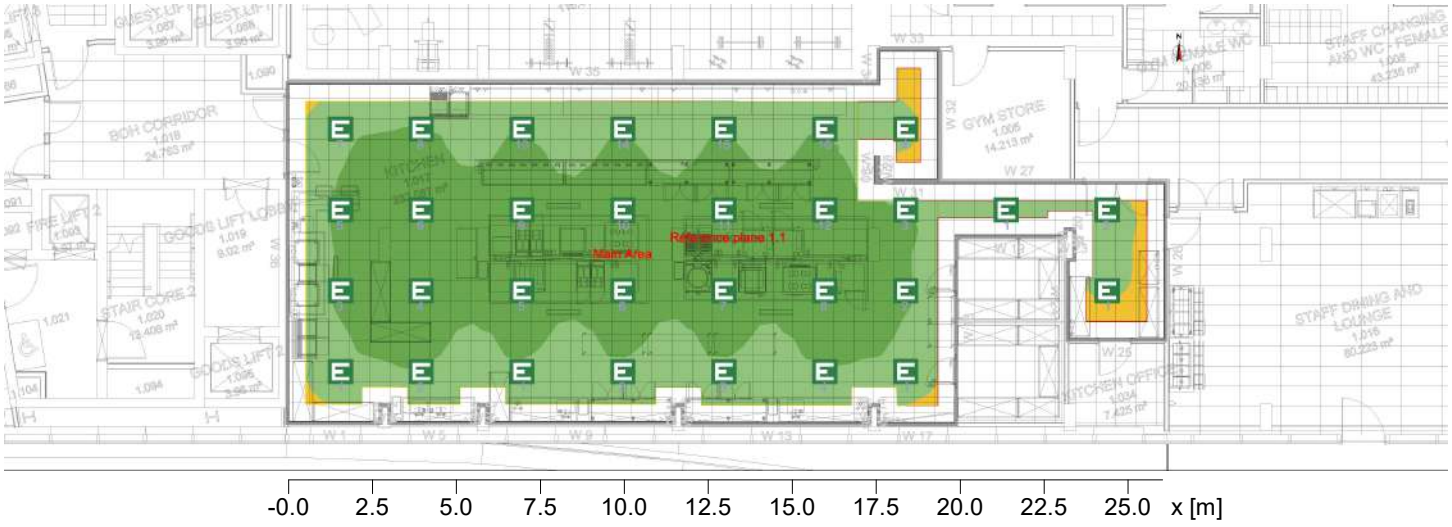
Average illuminance	$\bar{E}_m$	503 lx
Minimum illuminance	E_{min}	327 lx
Maximum illuminance	E_{max}	594 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.54 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.81 (0.55)

Type No.\Make

		Thorn	
1	31E x	Order No.	: 92982756 -- Emergency Lighting --
		Luminaire name	: DUOPRF2 4600-840 HFIX E3D PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 600 lm (13.0 %)

13.1 Summary, 1.017 Kitchen

13.1.2 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.30 m
Maintenance factor	0.80
Luminaire luminous flux	143530 lm
Total power	970.3 W
Total power per area (215.06 m²)	4.51 W/m² (0.92 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	492 lx
E_{min}	214 lx
$E_{min}/\bar{E}_m$ (U_o)	0.43
E_{min}/E_{max} (U_d)	0.36
Position	0.90 m (rot: 0°/0°)

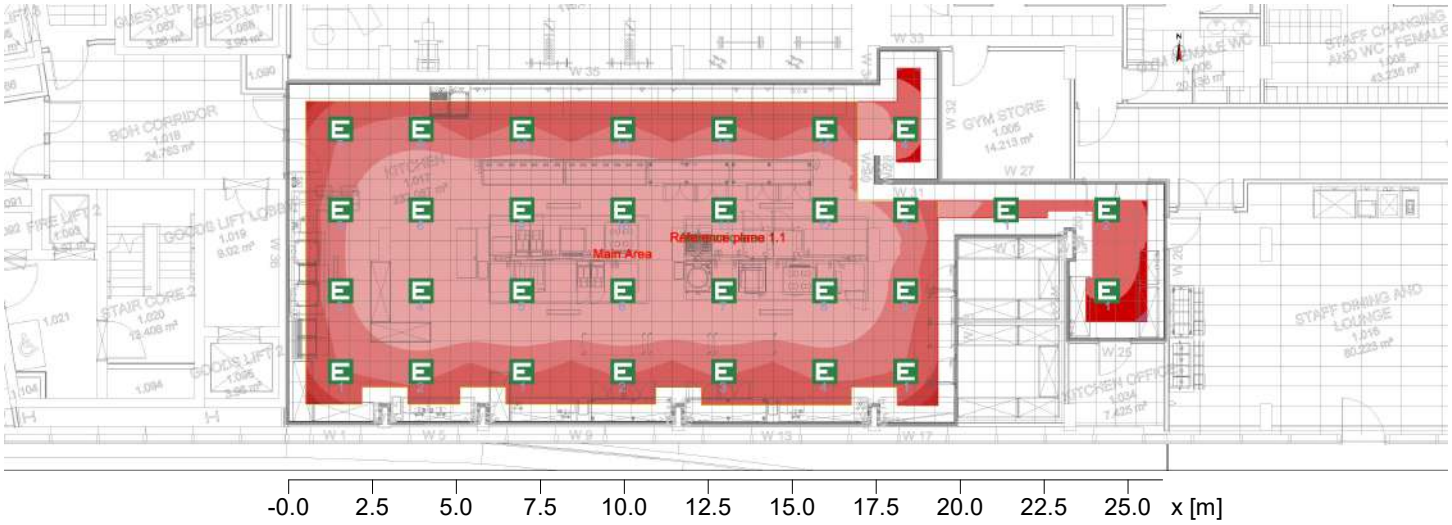
Type No.\Make

		Thorn	
1	31E x	Order No.	: 92982756 -- Emergency Lighting --
		Luminaire name	: DUOPRF2 4600-840 HFIX E3D PM O M600Q [STD]
		Equipment	: 1 x 96636089 31 W / 4630 lm
		Emergency	: 600 lm (13.0 %)

13 1.017 Kitchen

13.2 Summary, 1.017 Kitchen

13.2.1.1 Result overview (emergency lighting)



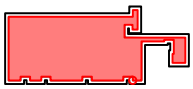


General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.30 m	
Maximum I	: 210 cd	<= 1600 cd

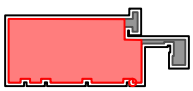
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
3 Anti panic area 1			
Calculation field: 25.03m x 10.02m (25 x 10 pts), Height = 0.00m			
1	11.16 lx	58.10 lx	1: 5.21
	>= 0.5 lx		>= 1 : 40



Measuring areas

No.	$\bar{E}_m$	Surface E_{min}	$E_{min}/\bar{E}_m$ (U_o)
3 Main Area			
Calculation field: 18.81m x 9.04m (25 x 10 pts), Height = 0.90m			
1	51 lx	24 lx	0.46
	---		>= 0.10



13 1.017 Kitchen

13.2 Summary, 1.017 Kitchen

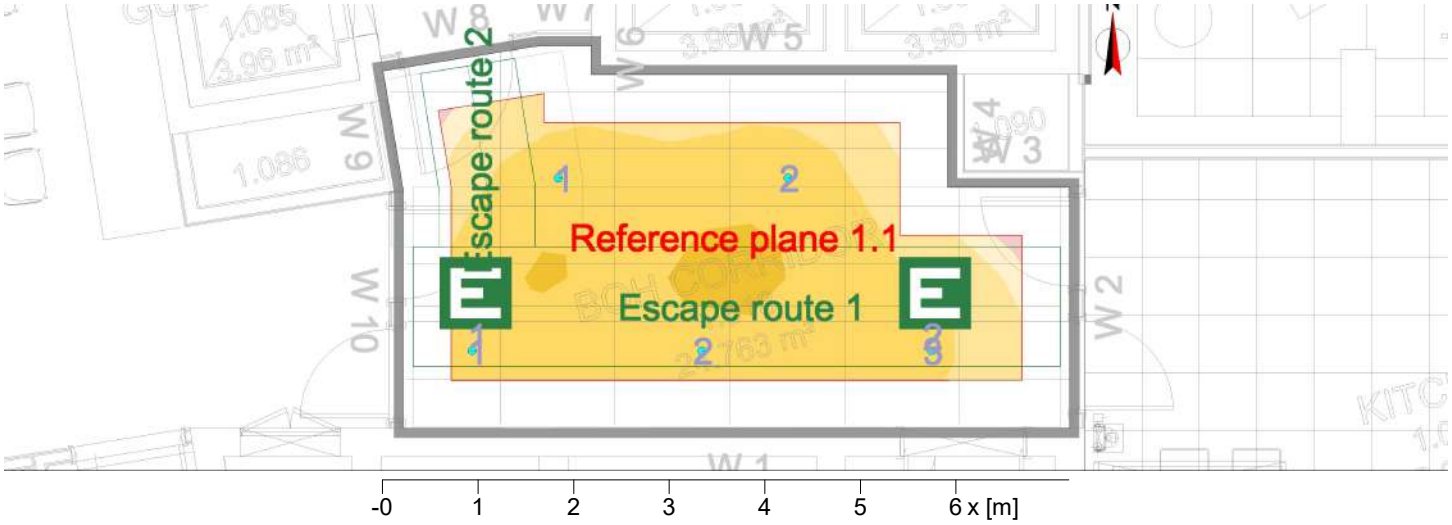
13.2.1.1 Result overview (emergency lighting)

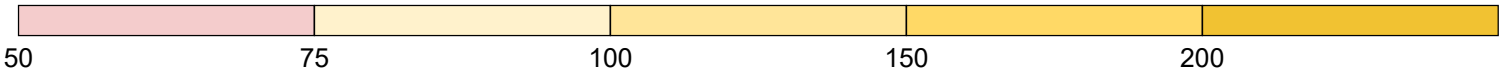
Type	No.	\Make		
		Thorn		
1	31E x	Order No.	: 92982756	-- Emergency Lighting --
		Luminaire name	: DUOPRF2 4600-840 HFIX E3D PM O M600Q [STD]	
		Equipment	: 1 x 96636089 31 W / 4630 lm	
		Emergency	: 600 lm (13.0 %)	

14 1.018 BOH Corridor

14.1 Summary, 1.018 BOH Corridor

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
Luminaire luminous flux	5247 lm
Total power	70.0 W
Total power per area (24.77 m²)	2.83 W/m² (1.68 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	168 lx
E_{min}	71 lx
$E_{min}/\bar{E}_m$ (U_o)	0.42
E_{min}/E_{max} (U_d)	0.34
Position	0.00 m (rot: 0°/0.03°)

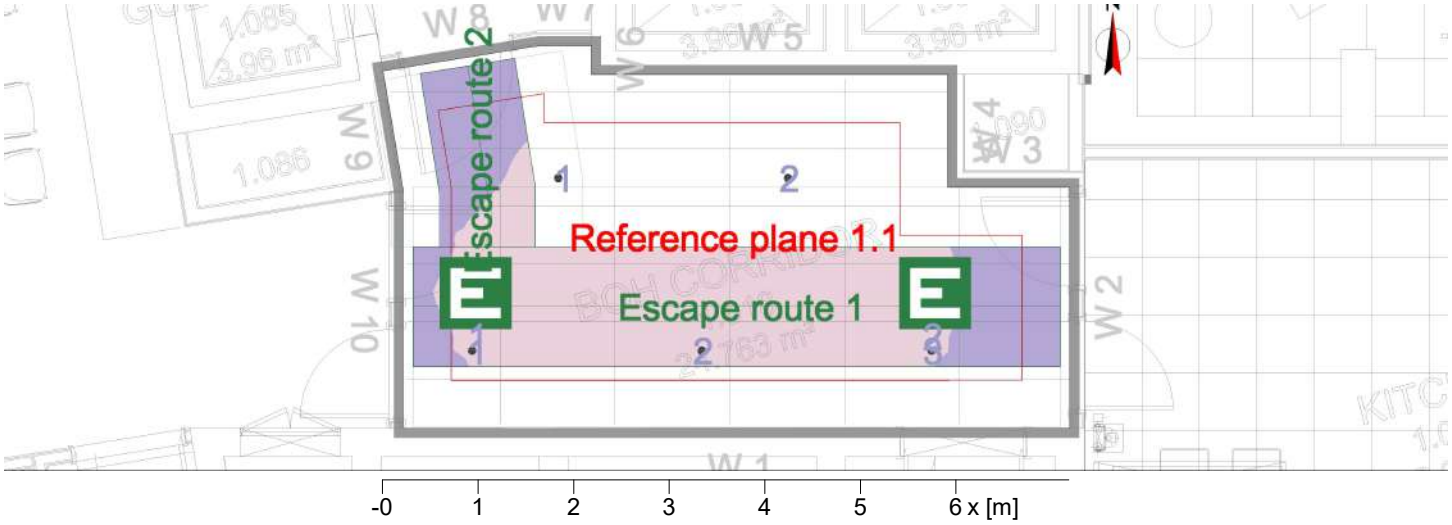
Type No.\Make

		Chiara Lighting Limited	
4	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

14 1.018 BOH Corridor

14.2 Summary, 1.018 BOH Corridor

14.2.1.1 Result overview (emergency lighting)





2 3

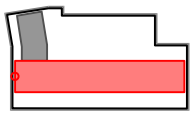
Illuminance [lx]

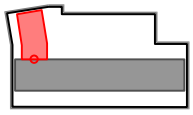
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 3.00 m	
Maximum I	: 53 cd	<= 1600 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 6.76m x 1.25m (29 x 9 pts), Height = 0.00m					
1	2.76 lx	3.60 lx	1: 1.30	2.71 lx	3.60 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 1.9m x 1m (10 x 9 pts), Height = 0.00m					
2	2.34 lx	3.09 lx	1: 1.32	2.30 lx	3.24 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	





Type No.\Make

14 1.018 BOH Corridor

14.2 Summary, 1.018 BOH Corridor

14.2.1.1 Result overview (emergency lighting)

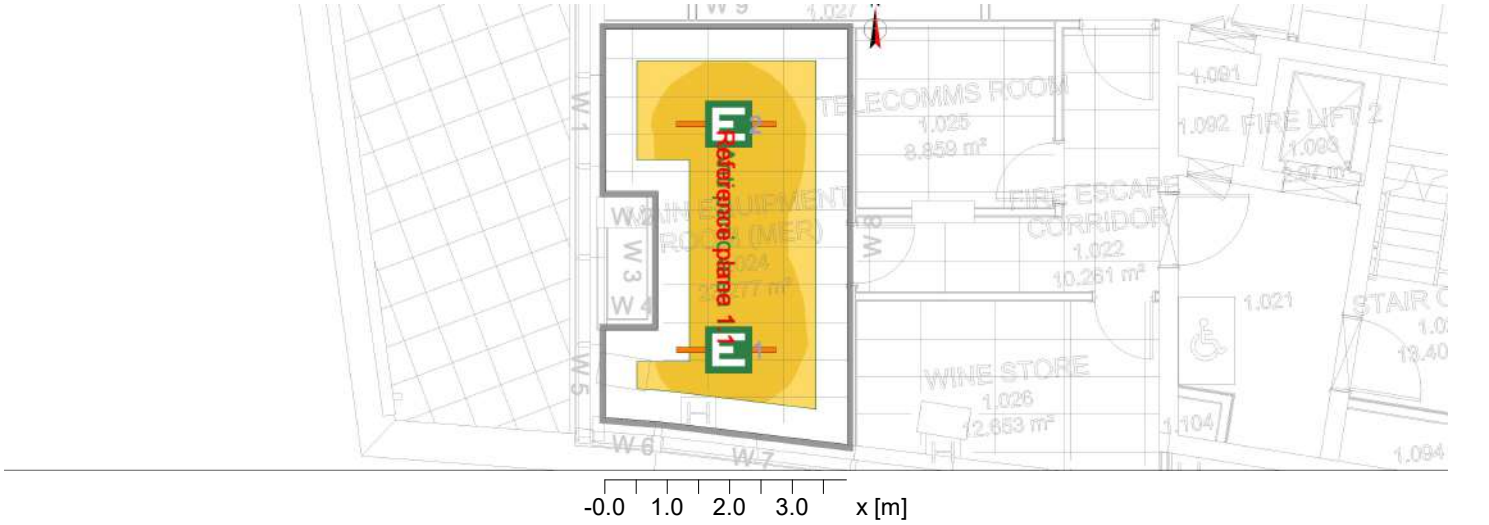
Tridonic

3	2E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

15 1.024 Main Equipment Room (MER)

15.1 Summary, 1.024 Main Equipment Room (MER)

15.1.1 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	13220 lm
Luminaire luminous flux	13217 lm
Total power	95.8 W
Total power per area (22.82 m²)	4.20 W/m² (1.87 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	225 lx
E_{min}	189 lx
$E_{min}/\bar{E}_m$ (U_o)	0.84
E_{min}/E_{max} (U_d)	0.73
Position	0.00 m

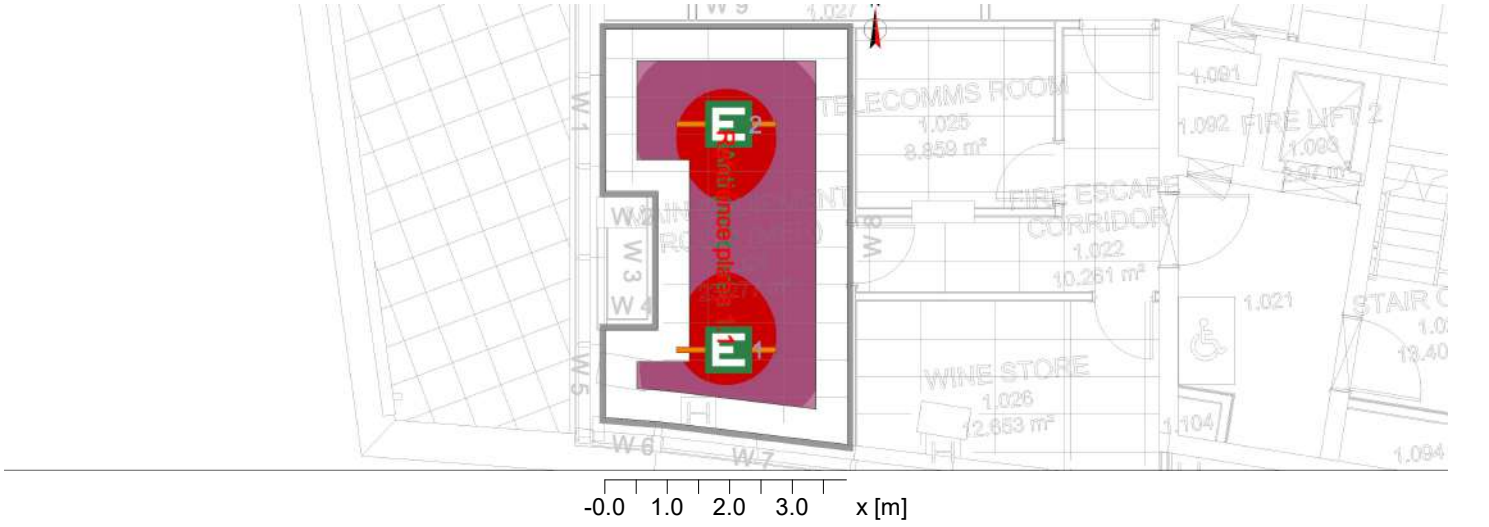
Type No.\Make

		Thorn	
2	2E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

15 1.024 Main Equipment Room (MER)

15.2 Summary, 1.024 Main Equipment Room (MER)

15.2.1.1 Result overview (emergency lighting)





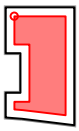
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.93 m	
Maximum I	: 170 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 5.56m x 2.86m (8 x 4 pts), Height = 0.00m			
1	8.57 lx	17.01 lx	1: 1.98
	>= 0.5 lx		>= 1 : 40



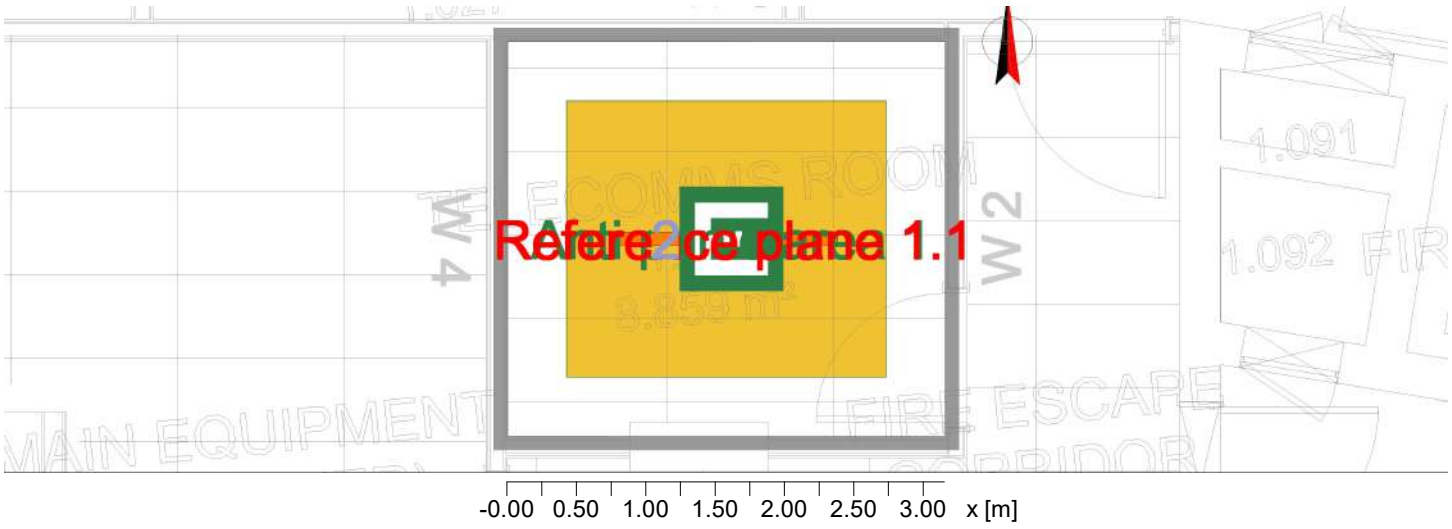
Type No.\Make

		Thorn	
2	2E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

16 1.025 Telecomms Room

16.1 Summary, 1.025 Telecomms Room

16.1.1 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	6610 lm
Luminaire luminous flux	6608 lm
Total power	47.9 W
Total power per area (8.94 m²)	5.36 W/m² (2.16 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	248 lx
E_{min}	214 lx
$E_{min}/\bar{E}_m$ (U_o)	0.86
E_{min}/E_{max} (U_d)	0.77
Position	0.00 m (rot: 0°/0°)

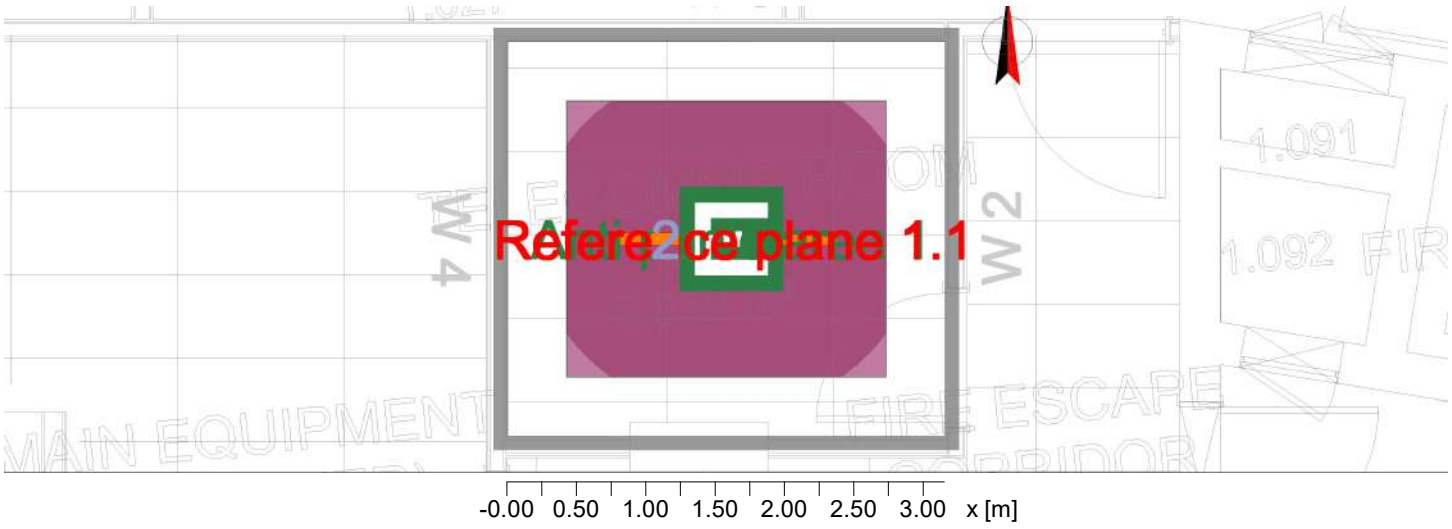
Type No.\Make

		Thorn	
2	1E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

16 1.025 Telecomms Room

16.2 Summary, 1.025 Telecomms Room

16.2.1.1 Result overview (emergency lighting)





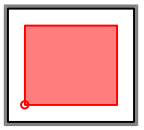
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.93 m	
Maximum I	: 170 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.3m x 1.99m (6 x 6 pts), Height = 0.00m			
1	8.88 lx	14.77 lx	1: 1.66
	>= 0.5 lx		>= 1 : 40



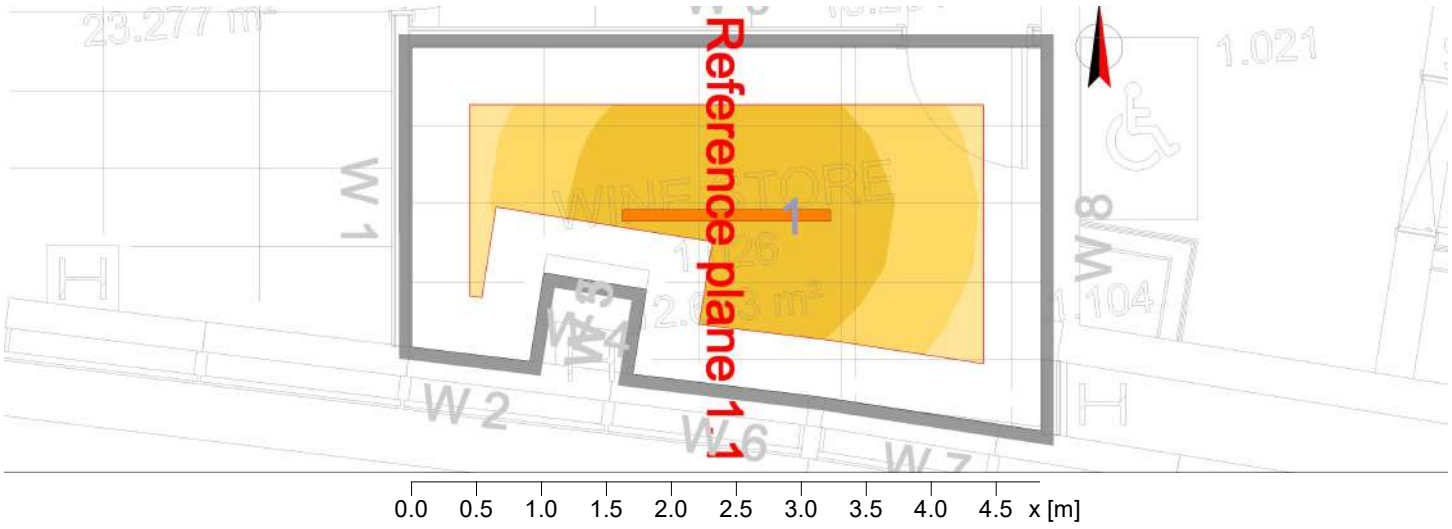
Type No.\Make

		Thorn	
2	1E x	Order No.	: 92902358 -- Emergency Lighting --
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

17 1.026 Wine Store

17.1 Summary, 1.026 Wine Store

17.1.1 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	6610 lm
Luminaire luminous flux	6608 lm
Total power	47.9 W
Total power per area (12.06 m²)	3.97 W/m² (1.93 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	206 lx
E_{min}	146 lx
$E_{min}/\bar{E}_m$ (U_o)	0.71
E_{min}/E_{max} (U_d)	0.56
Position	0.00 m

Type No.\Make

		Thorn	
2	1 x	Order No.	: 92902358
		Luminaire name	: AQFPRO L LED6400-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A6400-840PCMBHFI 44 W / 6610 lm
		Emergency	: 500 lm (7.6 %)

18 1.028 All Day Dining and Bar (i)

18.1 Summary, 1.028 All Day Dining and Bar (i)

18.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	4.05 m
Maintenance factor	0.80
Total lamp luminous flux	20760 lm
Luminaire luminous flux	20553 lm
Total power	202.5 W
Total power per area (87.05 m²)	2.33 W/m² (1.02 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	227 lx
E_{min}	90 lx
$E_{min}/\bar{E}_m$ (U_o)	0.40
E_{min}/E_{max} (U_d)	0.27
Position	0.75 m (rot: 0°/0°)

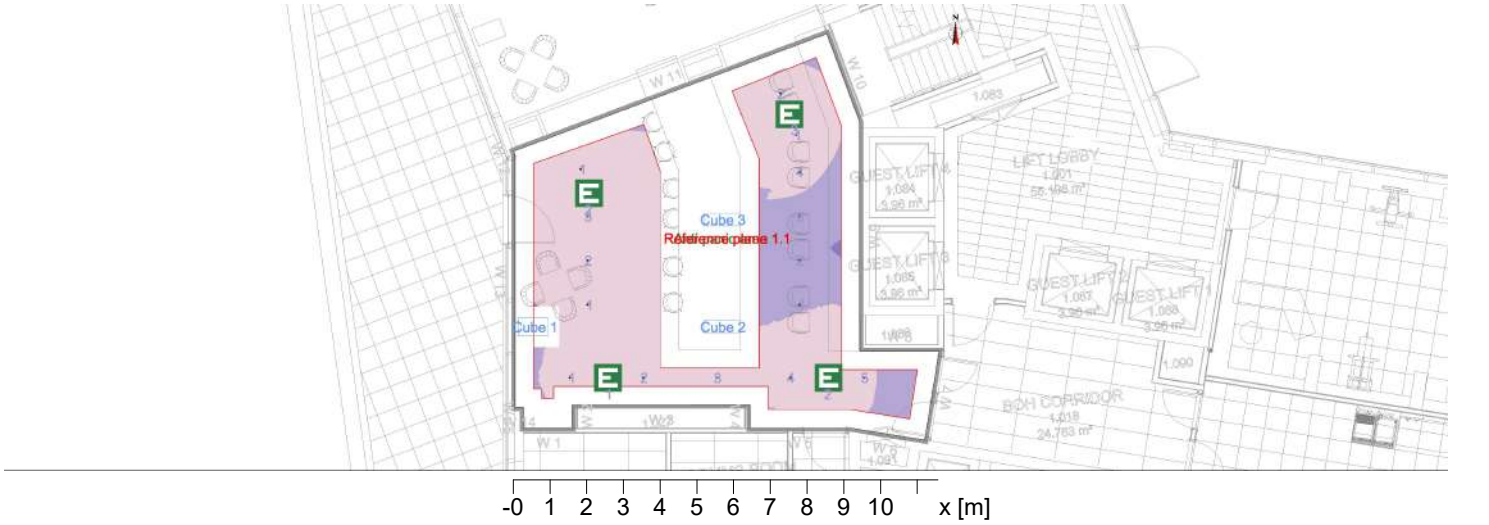
Type No.\Make

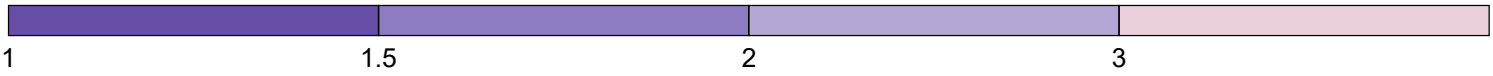
		Light Forms Ltd	
13	15 x	Order No.	: Type BL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
		Luminaire name	: Type BL01A - Nova Medium 62 [Medium] [Direct]
		Equipment	: 1 x 13.5 W / 1384 lm

18 1.028 All Day Dining and Bar (i)

18.2 Summary, 1.028 All Day Dining and Bar (i)

18.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.04 m	
Maximum I	: 73 cd	<= 3500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 10.44m x 9.81m (20 x 19 pts), Height = 0.00m			
1	1.35 lx	4.36 lx	1: 3.22
	>= 0.5 lx		>= 1 : 40



Type No.\Make

14 4E x **Jordan Reflectors**

Order No.	: 5264 -- Emergency Lighting --
Luminaire name	: TR/NM3-Open-Area-500mA-5264
Equipment	: 1 x LED 1.5 W / 184 lm (0%)
Emergency	: 184 lm

19 1.028 All Day Dining and Bar (ii)

19.1 Summary, 1.028 All Day Dining and Bar (ii)

19.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	80878 lm
Luminaire luminous flux	78877 lm
Total power	857.5 W
Total power per area (296.07 m²)	2.90 W/m² (1.30 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	223 lx
E_{min}	100 lx
$E_{min}/\bar{E}_m$ (U_o)	0.45
E_{min}/E_{max} (U_d)	0.30
Position	0.75 m (rot: 0°/0°)

Type No.\Make

15 14 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

19 1.028 All Day Dining and Bar (ii)

19.1 Summary, 1.028 All Day Dining and Bar (ii)

19.1.1 Result overview, Evaluation area 1

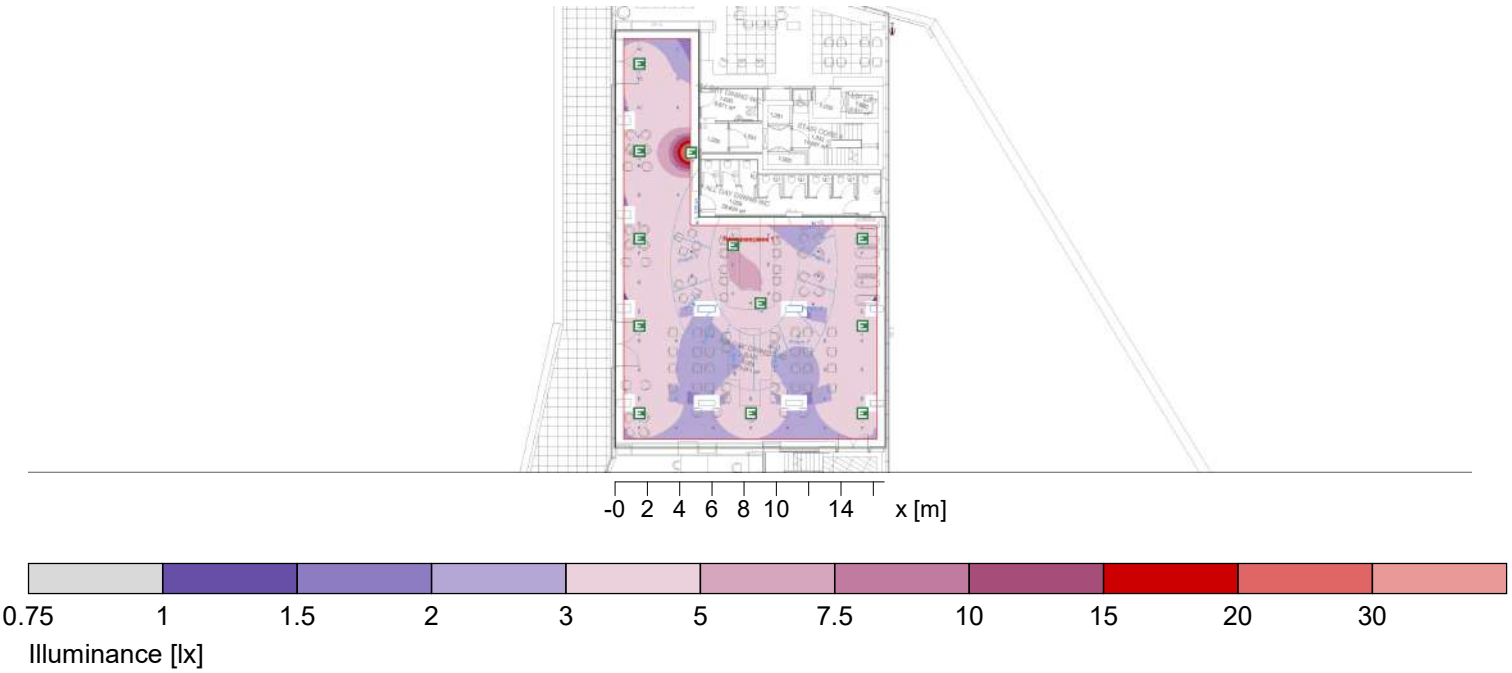
Light Forms Ltd

13 49 x Order No. : Type BL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
Luminaire name : Type BL01A - Nova Medium 62 [Medium] [Direct]
Equipment : 1 x 13.5 W / 1384 lm

19 1.028 All Day Dining and Bar (ii)

19.2 Summary, 1.028 All Day Dining and Bar (ii)

19.2.1.1 Result overview (emergency lighting)

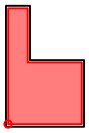


General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 600 cd

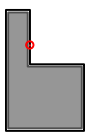
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 15.68m x 24.74m (15 x 24 pts), Height = 0.00m			
1	0.81 lx	30.86 lx	1: 38.26
	>= 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	5.94 lx	6.73 lx
	>= 5 lx	



19 1.028 All Day Dining and Bar (ii)

19.2 Summary, 1.028 All Day Dining and Bar (ii)

19.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

17 1E x 
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Surface)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

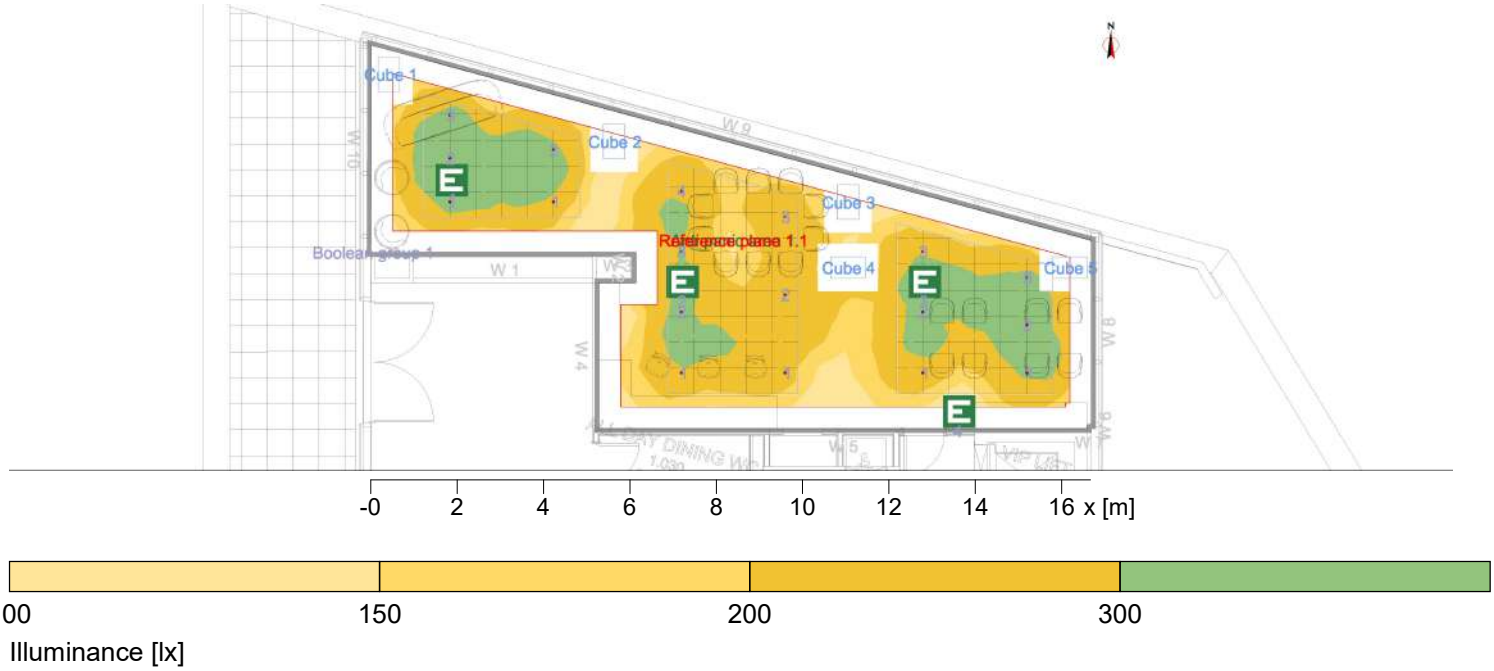
Jordan Reflectors

14 11E x 
Order No. : 5264 -- Emergency Lighting --
Luminaire name : TR/NM3-Open-Area-500mA-5264
Equipment : 1 x LED 1.5 W / 184 lm (0%)
Emergency : 184 lm

20 1.028 All Day Dining and Bar (iii)

20.1 Summary, 1.028 All Day Dining and Bar (iii)

20.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	24912 lm
Luminaire luminous flux	24663 lm
Total power	243.0 W
Total power per area (87.94 m²)	2.76 W/m² (1.10 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	252 lx
E_{min}	102 lx
$E_{min}/\bar{E}_m$ (U_o)	0.40
E_{min}/E_{max} (U_d)	0.24
Position	0.75 m (rot: 0°/0°)

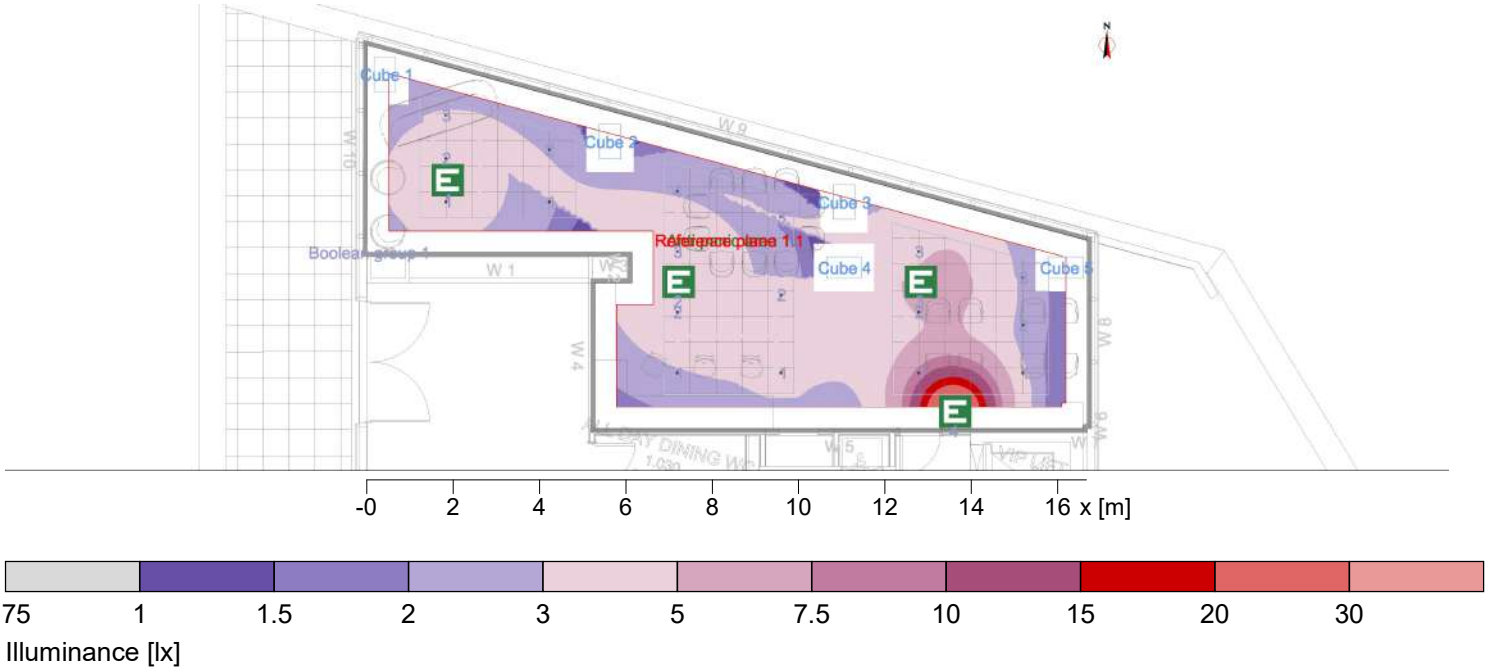
Type No.\Make

		Light Forms Ltd	
13	18 x	Order No.	: Type BL01A - Nova Medium 62 [Medium] [Direct] [2700K] [90] [36]
		Luminaire name	: Type BL01A - Nova Medium 62 [Medium] [Direct]
		Equipment	: 1 x 13.5 W / 1384 lm

20 1.028 All Day Dining and Bar (iii)

20.2 Summary, 1.028 All Day Dining and Bar (iii)

20.2.1.1 Result overview (emergency lighting)



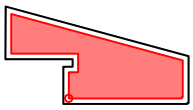
Illuminance [lx]

General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 600 cd

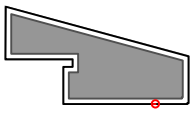
Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 15.67m x 7.7m (19 x 9 pts), Height = 0.00m			
1	0.97 lx	34.18 lx	1: 35.06
	>= 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	6.79 lx	7.85 lx
	>= 5 lx	



20 1.028 All Day Dining and Bar (iii)

20.2 Summary, 1.028 All Day Dining and Bar (iii)

20.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

16 1E x 

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

Jordan Reflectors

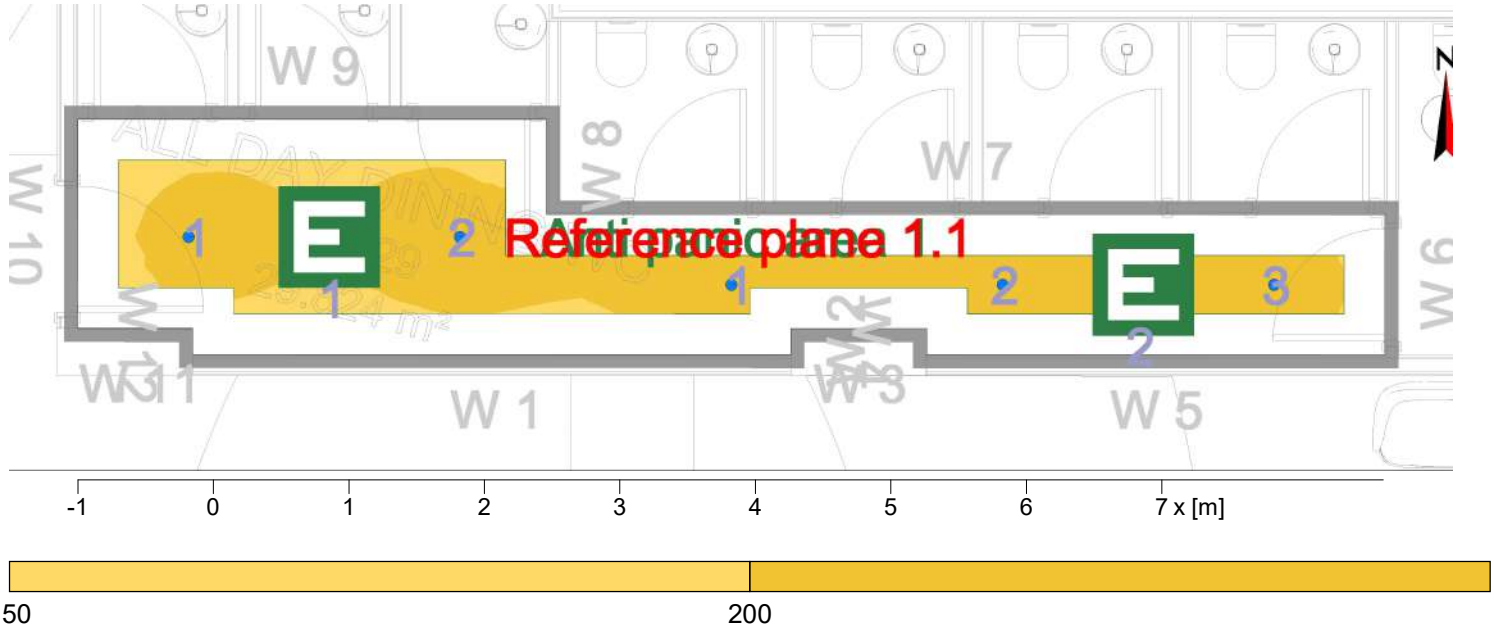
14 3E x 

Order No. : 5264 -- Emergency Lighting --
Luminaire name : TR/NM3-Open-Area-500mA-5264
Equipment : 1 x LED 1.5 W / 184 lm (0%)
Emergency : 184 lm

21 1.029 All Day Dining WC

21.1 Summary, 1.029 All Day Dining WC

21.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.55 m
Maintenance factor	0.80
Luminaire luminous flux	5247 lm
Total power	70.0 W
Total power per area (12.00 m²)	5.83 W/m² (2.71 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	215 lx
E_{min}	180 lx
$E_{min}/\bar{E}_m$ (U_o)	0.84
E_{min}/E_{max} (U_d)	0.76
Position	0.00 m (rot: 0°/0.01°)

Type No.\Make

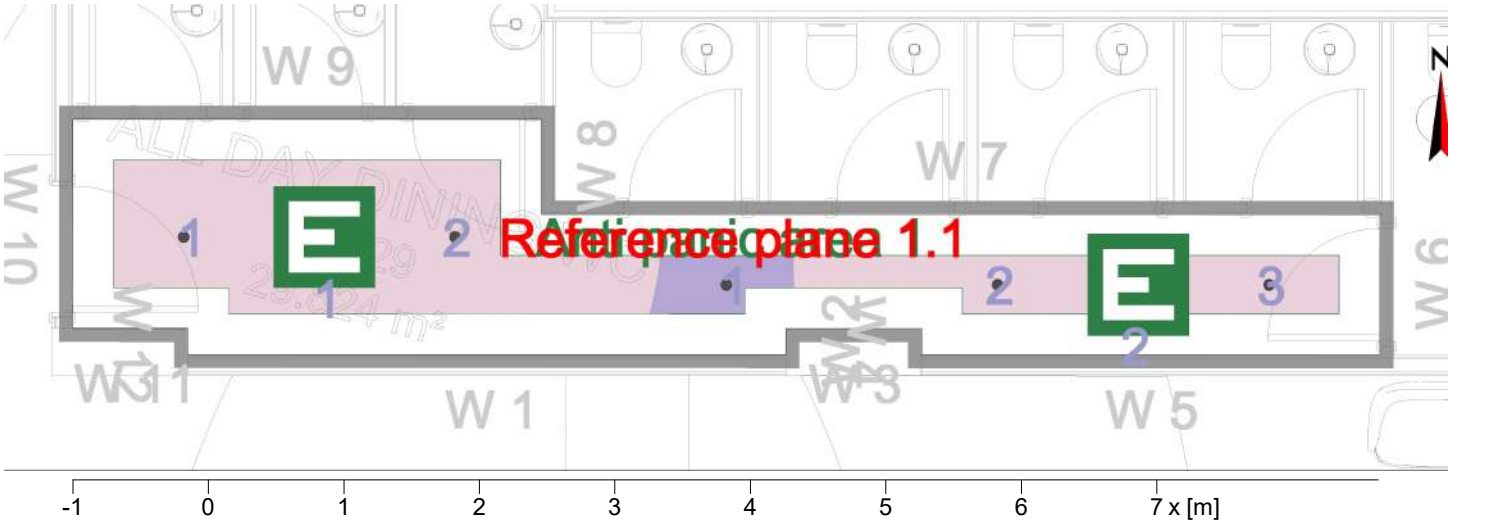
10 5 x

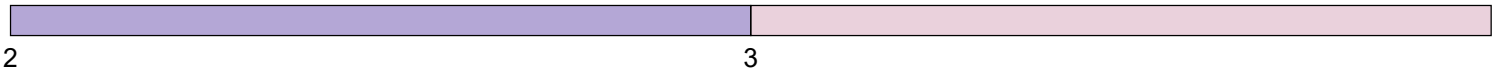
Chiara Lighting Limited
Order No. : !APRF.X.X LE5.27.14.50.X
Luminaire name : Arch Pro Round Fixed, 927.14W.50d
Equipment : 1 x 2700K 14 W / 943 lm

21 1.029 All Day Dining WC

21.2 Summary, 1.029 All Day Dining WC

21.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.55 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 9.03m x 1.13m (41 x 5 pts), Height = 0.00m			
1	2.76 lx	3.98 lx	1: 1.44
	>= 0.5 lx		>= 1 : 40



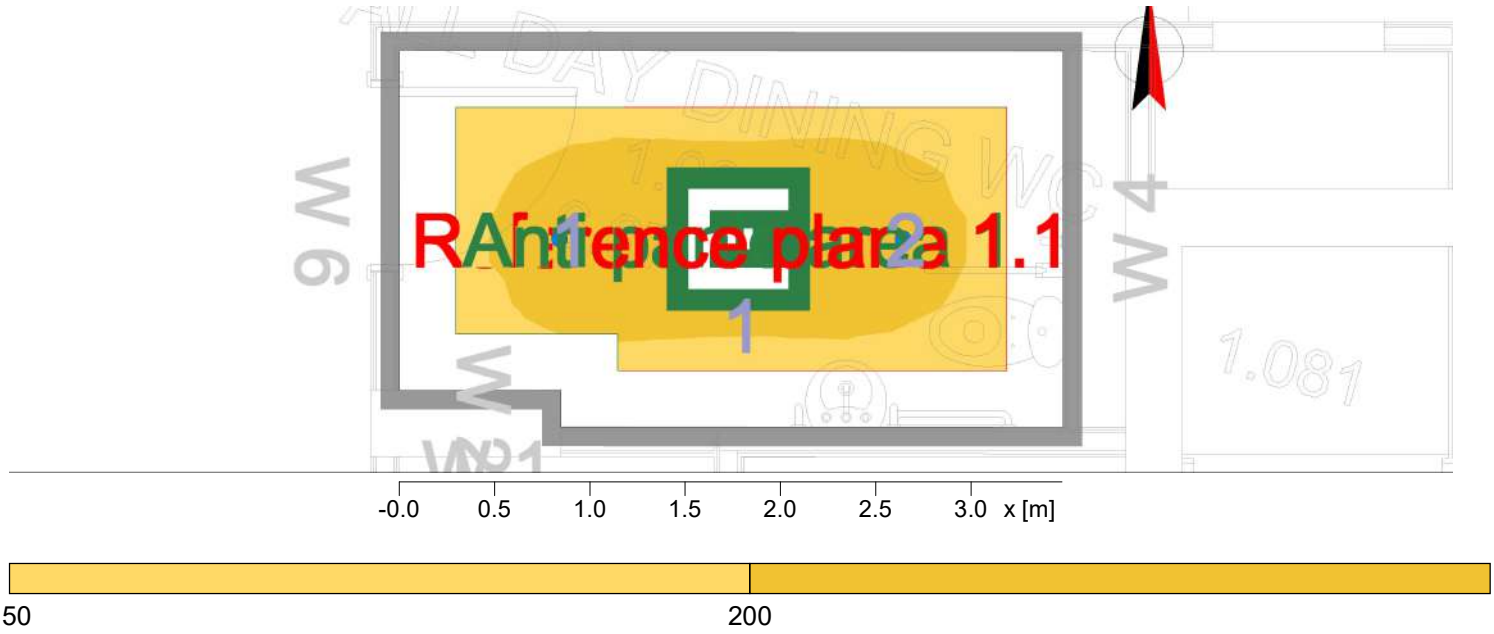
Type No.\Make

		Tridonic	
3	2E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

22 1.030 All Day Dining WC

22.1 Summary, 1.030 All Day Dining WC

22.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.55 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.68 m²)	4.19 W/m² (2.03 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	207 lx
E_{min}	165 lx
$E_{min}/\bar{E}_m$ (U_o)	0.79
E_{min}/E_{max} (U_d)	0.69
Position	0.00 m (rot: 0°/0.01°)

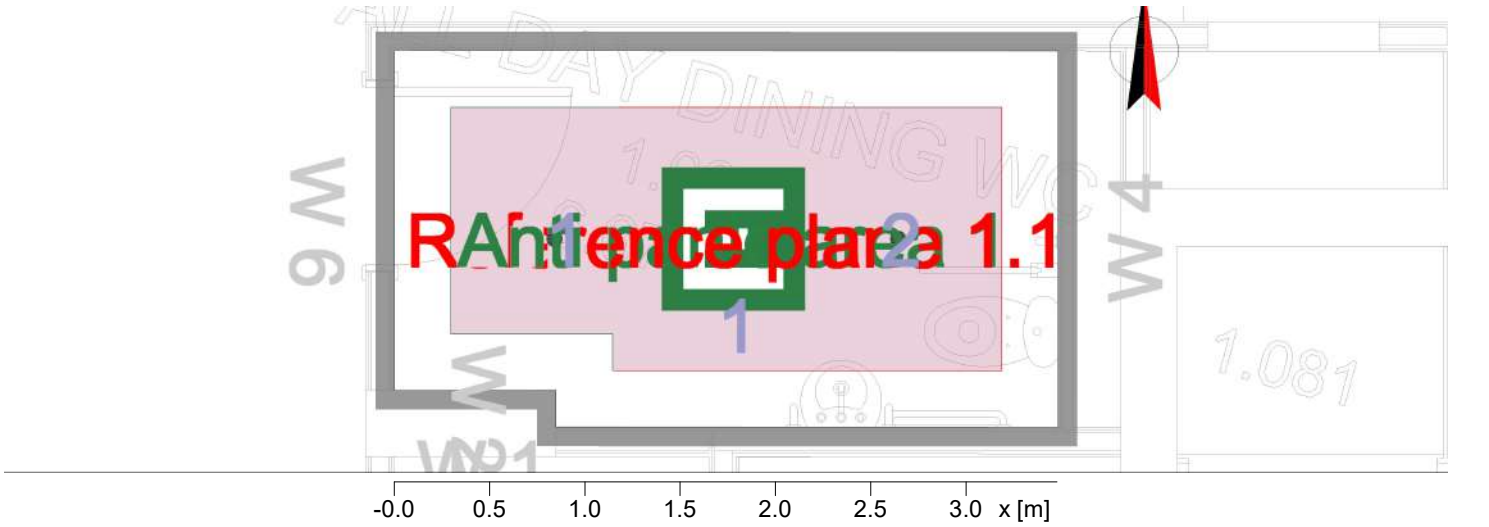
Type No.\Make

		Chiara Lighting Limited
10	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

22 1.030 All Day Dining WC

22.2 Summary, 1.030 All Day Dining WC

22.2.1.1 Result overview (emergency lighting)





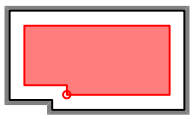
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.55 m	
Maximum I	: 53 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.89m x 1.38m (12 x 6 pts), Height = 0.00m			
1	3.04 lx	3.59 lx	1: 1.18
	>= 0.5 lx		>= 1 : 40



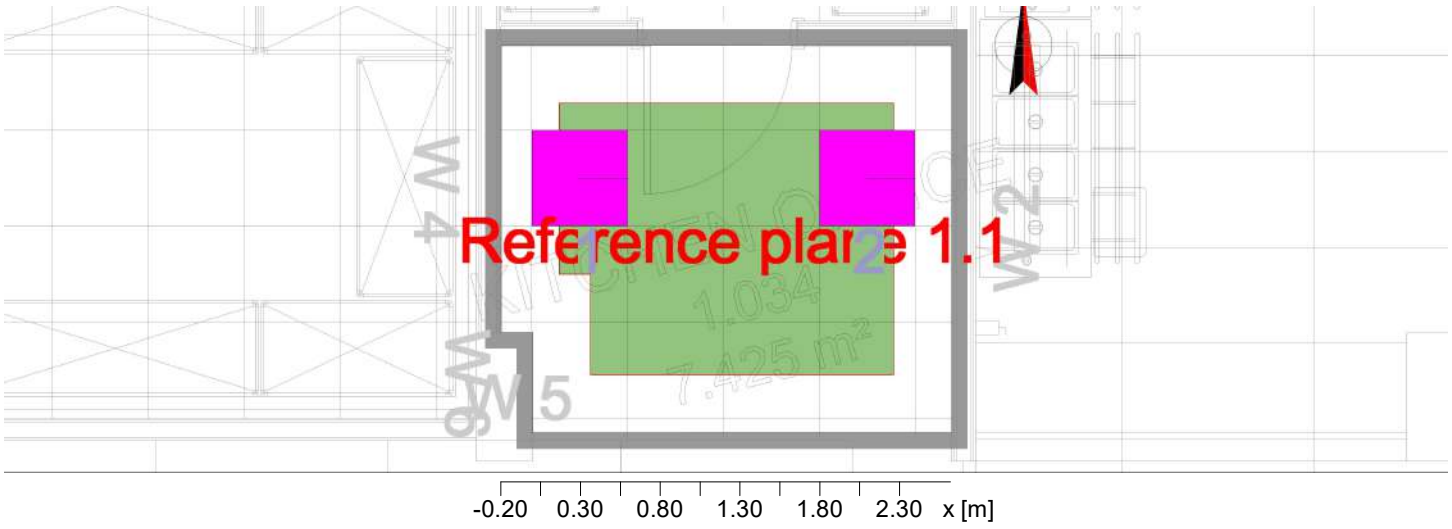
Type No.\Make

		Tridonic	
3	1E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Anti Panic (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
		Emergency	: 217 lm

23 1.034 Kitchen Office

23.1 Summary, 1.034 Kitchen Office

23.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	3.30 m
Maintenance factor	0.80
Total lamp luminous flux	8200 lm
Luminaire luminous flux	8194 lm
Total power	67.2 W
Total power per area (6.70 m²)	10.03 W/m² (2.29 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	439 lx
E_{min}	341 lx
$E_{min}/\bar{E}_m$ (U_o)	0.78
E_{min}/E_{max} (U_d)	0.69
Position	0.75 m (rot: 0°/0°)

Type No.\Make

		Thorn	
7	2 x	Order No.	: 96634494
		Luminaire name	: BETA 3 4100-840 HFIX LRO Q600 [STD]
		Equipment	: 1 x BET3_MO-840 34 W / 4100 lm
		Emergency	: 328 lm (8.0 %)

Hotel - Level 02-04

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	11.03.2025

Project description:

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

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to take account of latest GAs / RCPs from Architect / Space Invaders. Also Emergency Lighting Review doc received from RF 07.02.2025.

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.

Table of contents

First Page 1
Table of contents 2
1 2.002 Guestroom Corridor (i)
1.1 Summary, 2.002 Guestroom Corridor (i)
1.1.1 Result overview, Evaluation area 1 4
1.2 Summary, 2.002 Guestroom Corridor (i)
1.2.1.1 Result overview (emergency lighting) 5
2 2.002 Guestroom Corridor (ii)
2.1 Summary, 2.002 Guestroom Corridor (ii)
2.1.1 Result overview, Evaluation area 1 7
2.2 Summary, 2.002 Guestroom Corridor (ii)
2.2.1.1 Result overview (emergency lighting) 8
3 2.002 Guestroom Corridor (iii)
3.1 Summary, 2.002 Guestroom Corridor (iii)
3.1.1 Result overview, Evaluation area 1 9
3.2 Summary, 2.002 Guestroom Corridor (iii)
3.2.1.1 Result overview (emergency lighting) 10
4 2.002 Guestroom Corridor (iv)
4.1 Summary, 2.002 Guestroom Corridor (iv)
4.1.1 Result overview, Evaluation area 1 12
4.2 Summary, 2.002 Guestroom Corridor (iv)
4.2.1.1 Result overview (emergency lighting) 13
5 2.002 Guestroom Corridor (v)
5.1 Summary, 2.002 Guestroom Corridor (v)
5.1.1 Result overview, Evaluation area 1 15
5.2 Summary, 2.002 Guestroom Corridor (v)
5.2.1.1 Result overview (emergency lighting) 16
6 2.002 Guestroom Corridor (vi)
6.1 Summary, 2.002 Guestroom Corridor (vi)
6.1.1 Result overview, Evaluation area 1 17
6.2 Summary, 2.002 Guestroom Corridor (vi)
6.2.1.1 Result overview (emergency lighting) 18
7 2.003 Telecomms Room
7.1 Summary, 2.003 Telecomms Room
7.1.1 Result overview, Evaluation area 1 20
7.2 Summary, 2.003 Telecomms Room
7.2.1.1 Result overview (emergency lighting) 21
8 2.004 Goods Lift Lobby HK
8.1 Summary, 2.004 Goods Lift Lobby HK
8.1.1 Result overview, Evaluation area 1 22
8.2 Summary, 2.004 Goods Lift Lobby HK
8.2.1.1 Result overview (emergency lighting) 23
9 2.006 Fire Lobby Core 2
9.1 Summary, 2.006 Fire Lobby Core 2
9.1.1 Result overview, Evaluation area 1 24
9.2 Summary, 2.006 Fire Lobby Core 2
9.2.1.1 Result overview (emergency lighting) 25
10 2.062 Goods Lobby & Housekeeping Core 1
10.1 Summary, 2.062 Goods Lobby & Housekeeping Core 1
10.1.1 Result overview, Evaluation area 1 26

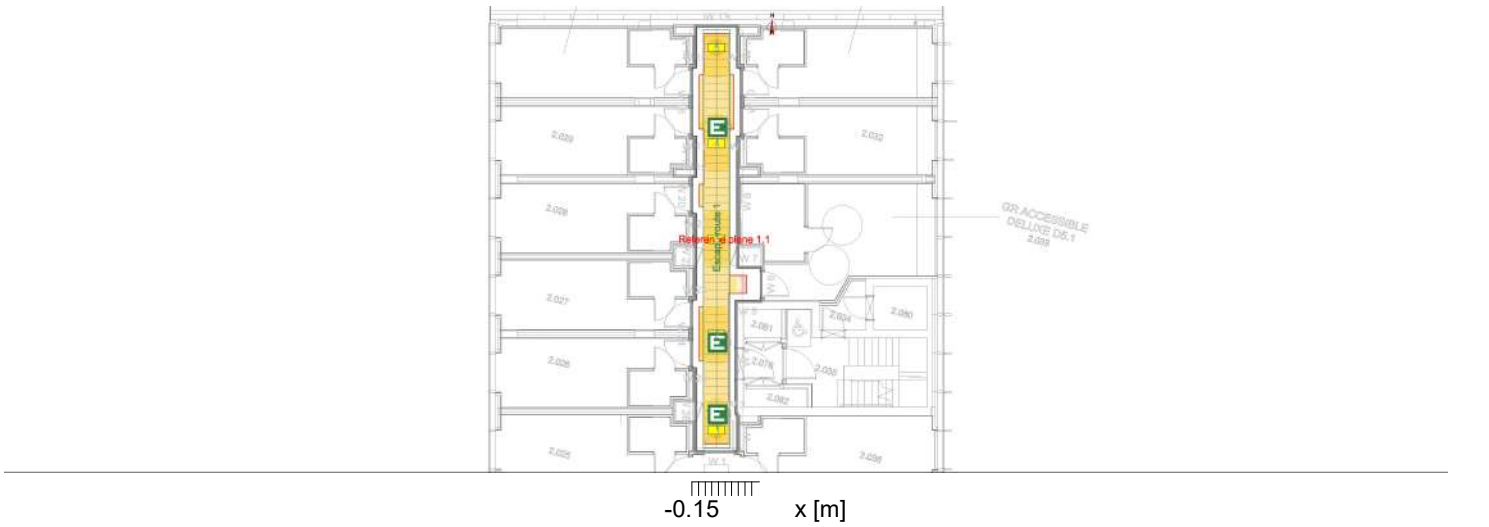
Table of contents

10.2 Summary, 2.062 Goods Lobby & Housekeeping Core 1
10.2.1. Result overview (emergency lighting) 27
11 2.063 Fire Lobby Core 1
11.1 Summary, 2.063 Fire Lobby Core 1
11.1.1 Result overview, Evaluation area 1 28
11.2 Summary, 2.063 Fire Lobby Core 1
11.2.1. Result overview (emergency lighting) 29
12 2.078 Fire Lobby Core 4
12.1 Summary, 2.078 Fire Lobby Core 4
12.1.1 Result overview, Evaluation area 1 30
12.2 Summary, 2.078 Fire Lobby Core 4
12.2.1. Result overview (emergency lighting) 31

1 2.002 Guestroom Corridor (i)

1.1 Summary, 2.002 Guestroom Corridor (i)

1.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	10000 lm
Total power	108.5 W
Total power per area (26.10 m²)	4.16 W/m² (2.59 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	160 lx
E_{min}	66 lx
$E_{min}/\bar{E}_m$ (U_o)	0.41
E_{min}/E_{max} (U_d)	0.32
Position	0.00 m (rot: 0°/0°)

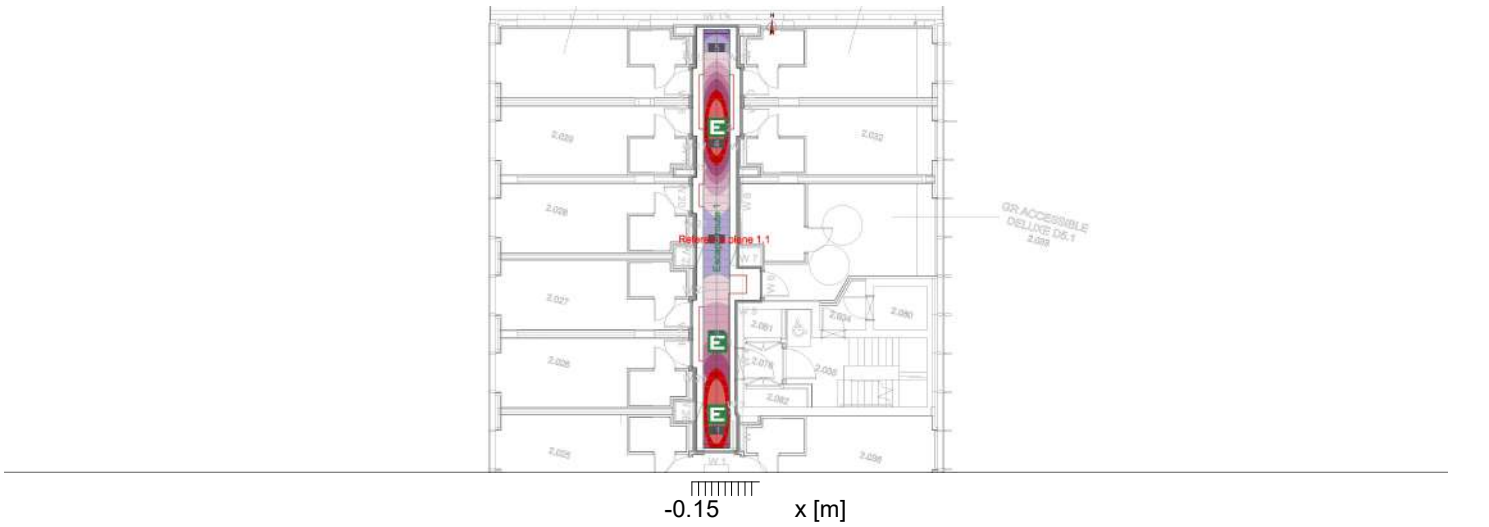
Type No.\Make

1	5 x	Order No.	: Type CLL01 - LP-Panel 6060 Surface 2700
		Luminaire name	: Type CLL01 - LP-Panel 6060 Surface 2700
		Equipment	: 1 x PL6060 21.7 W / 2000 lm

1 2.002 Guestroom Corridor (i)

1.2 Summary, 2.002 Guestroom Corridor (i)

1.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.27 m	
Maximum I	: 190 cd	<= 500 cd

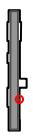
Escape routes:

No.	Central axis Emin [lx]	Central axis Emax [lx]	Ud	Surface Emin [lx]	Surface Emax [lx]
Escape route 1					
Calculation field: 15.74m x 1m (74 x 9 pts), Height = 0.00m					
1	1.75 lx	30.19 lx	1: 17.25	1.35 lx	30.19 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	9.31 lx	14.11 lx
	>= 5 lx	



1 2.002 Guestroom Corridor (i)

1.2 Summary, 2.002 Guestroom Corridor (i)

1.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

2 2E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Escape Route (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 208 lm (0%)
Emergency : 208 lm

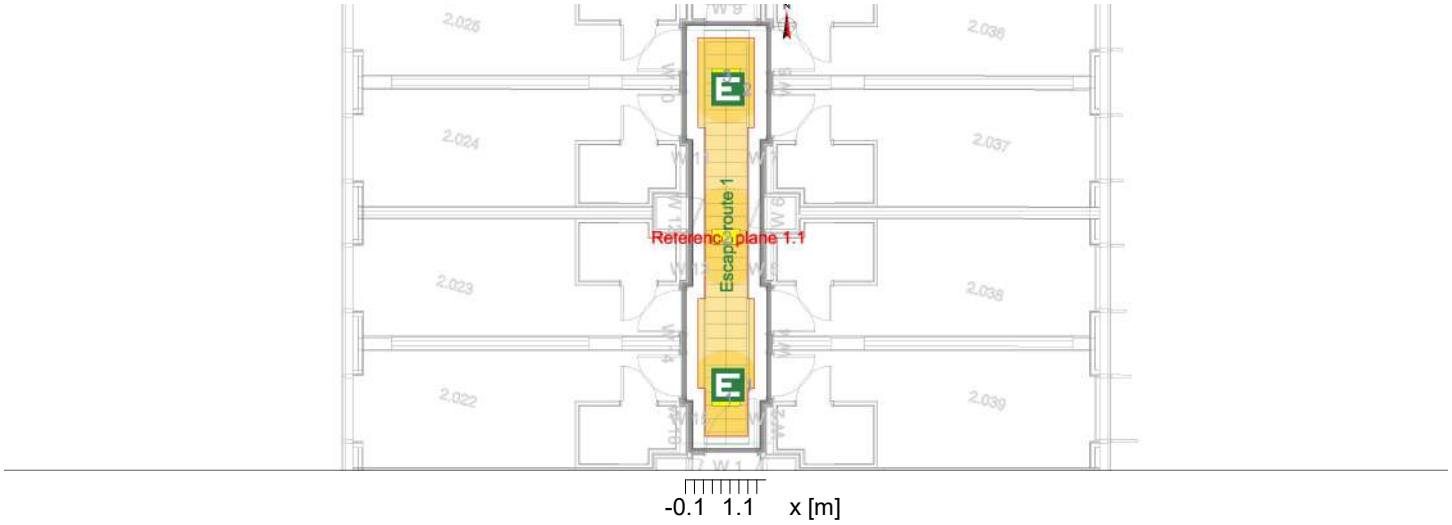
7 1E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

2 2.002 Guestroom Corridor (ii)

2.1 Summary, 2.002 Guestroom Corridor (ii)

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	6000 lm
Total power	65.1 W
Total power per area (15.67 m²)	4.15 W/m² (2.56 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	162 lx
E_{min}	118 lx
$E_{min}/\bar{E}_m$ (U_o)	0.73
E_{min}/E_{max} (U_d)	0.59
Position	0.00 m (rot: 0°/0°)

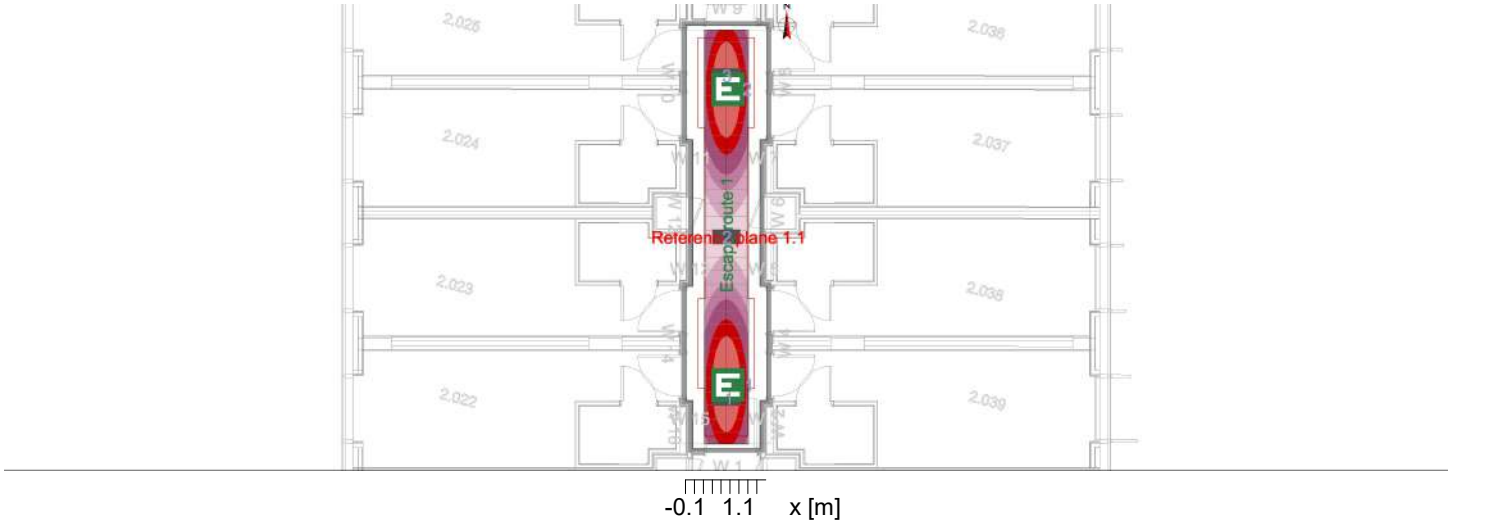
Type No.\Make

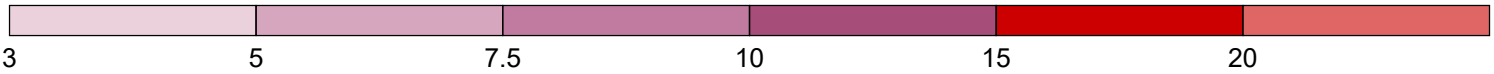
1	3 x	Order No.	: Type CLL01 - LP-Panel 6060 Surface 2700
		Luminaire name	: Type CLL01 - LP-Panel 6060 Surface 2700
		Equipment	: 1 x PL6060 21.7 W / 2000 lm

2 2.002 Guestroom Corridor (ii)

2.2 Summary, 2.002 Guestroom Corridor (ii)

2.2.1.1 Result overview (emergency lighting)





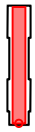
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.28 m	
Maximum I	: 190 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 (51 x 9 pts), Height = 0.00m					
1	4.67 lx	28.90 lx	1: 6.19	3.65 lx	28.90 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	



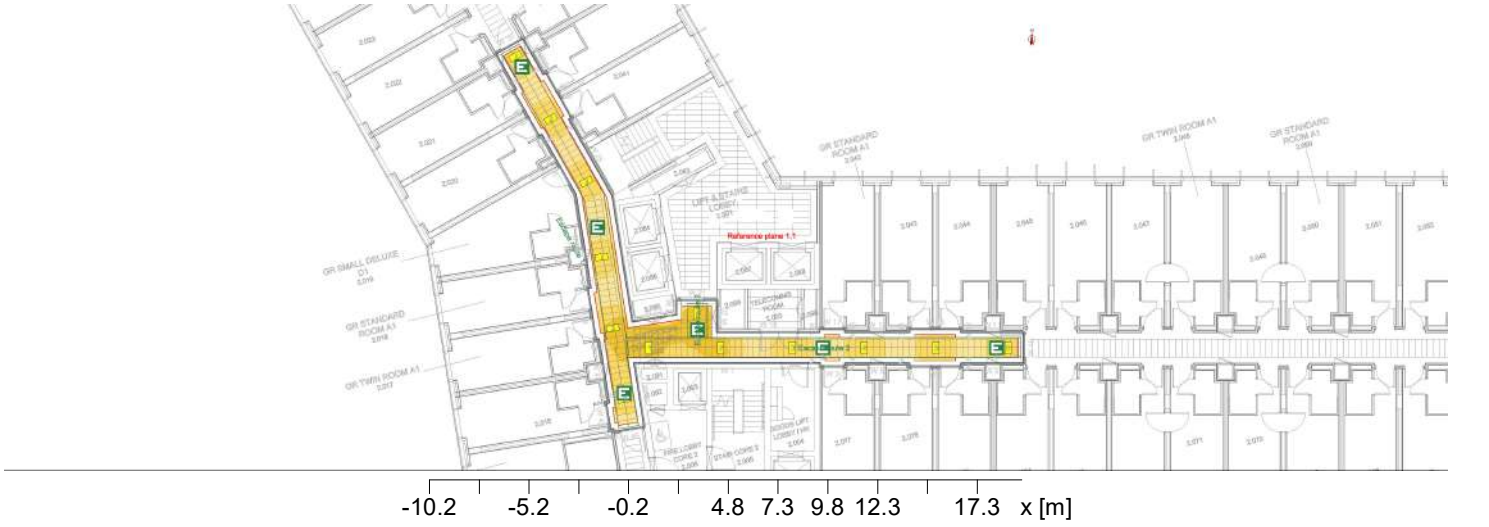
Type No.\Make

		Tridonic		
2	2E x	Order No.	: !	-- Emergency Lighting --
		Luminaire name	: 2W Escape Route (Recessed)	
		Equipment	: 1 x EM R2A 2W 1 W / 208 lm (0%)	
		Emergency	: 208 lm	

3 2.002 Guestroom Corridor (iii)

3.1 Summary, 2.002 Guestroom Corridor (iii)

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.27 m
Maintenance factor	0.80
Luminaire luminous flux	26000 lm
Total power	282.1 W
Total power per area (68.75 m²)	4.10 W/m² (2.37 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	173 lx
E_{min}	111 lx
$E_{min}/\bar{E}_m$ (U_o)	0.64
E_{min}/E_{max} (U_d)	0.43
Position	0.00 m

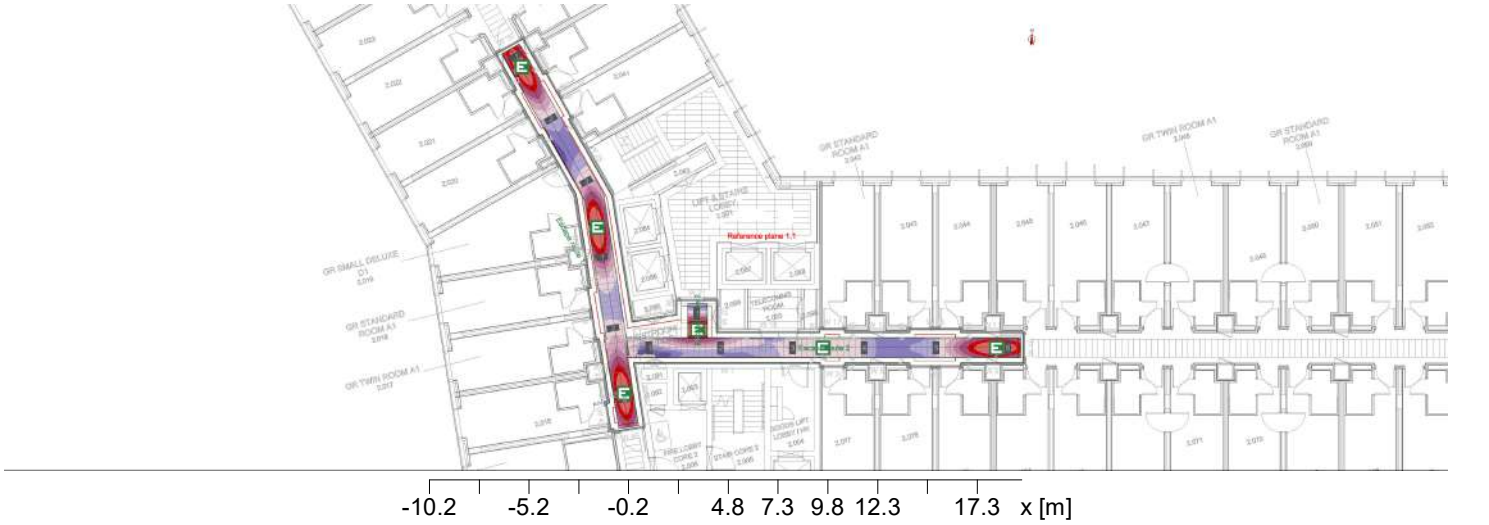
Type No.\Make

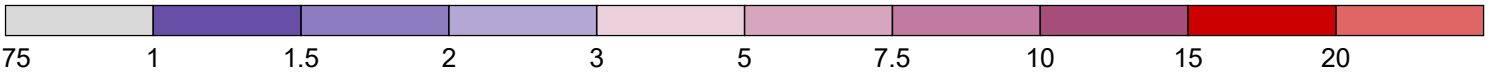
1	13 x	Order No.	: Type CLL01 - LP-Panel 6060 Surface 2700
		Luminaire name	: Type CLL01 - LP-Panel 6060 Surface 2700
		Equipment	: 1 x PL6060 21.7 W / 2000 lm

3 2.002 Guestroom Corridor (iii)

3.2 Summary, 2.002 Guestroom Corridor (iii)

3.2.1.1 Result overview (emergency lighting)





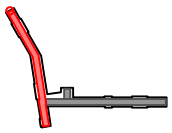
Illuminance [lx]

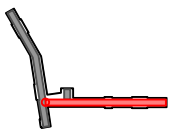
General

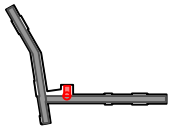
Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.28 m	
Maximum I	: 190 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Central axis Emax [lx]	Ud	Surface Emin [lx]	Surface Emax [lx]
Escape route 1					
Calculation field: 20.26m x 1m (178 x 9 pts), Height = 0.00m					
1	1.71 lx	28.82 lx	1: 16.85	1.13 lx	28.82 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 19.77m x 1m (88 x 9 pts), Height = 0.00m					
2	1.64 lx	28.70 lx	1: 17.50	0.79 lx	28.70 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 3					
Calculation field: 1.69m x 1m (6 x 9 pts), Height = 0.00m					
3	1.99 lx	28.62 lx	1: 14.38	1.90 lx	28.62 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	







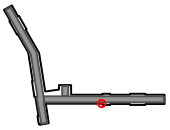
3 2.002 Guestroom Corridor (iii)

3.2 Summary, 2.002 Guestroom Corridor (iii)

3.2.1.1 Result overview (emergency lighting)

Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	8.23 lx >= 5 lx	13.31 lx



Type No.\Make

Tridonic

2 5E x

Order No.	: ! -- Emergency Lighting --
Luminaire name	: 2W Escape Route (Recessed)
Equipment	: 1 x EM R2A 2W 1 W / 208 lm (0%)
Emergency	: 208 lm

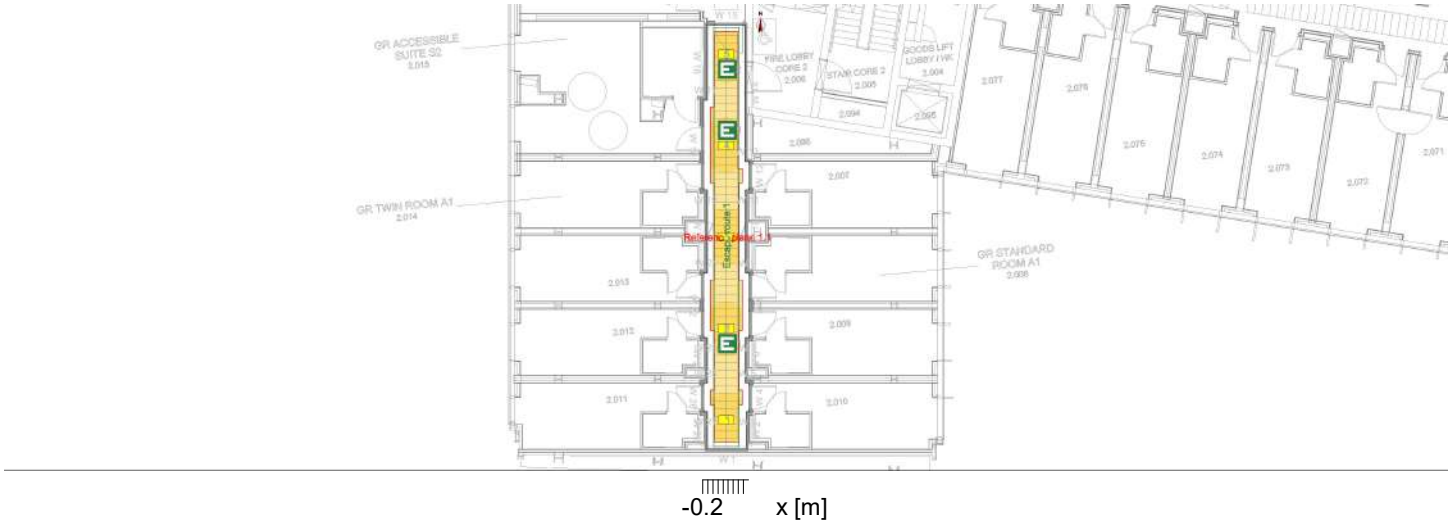
7 1E x

Order No.	: ! -- Emergency Lighting --
Luminaire name	: 2W Anti Panic (Recessed)
Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency	: 217 lm

4 2.002 Guestroom Corridor (iv)

4.1 Summary, 2.002 Guestroom Corridor (iv)

4.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	10000 lm
Total power	108.5 W
Total power per area (26.78 m²)	4.05 W/m² (2.50 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	162 lx
E_{min}	119 lx
$E_{min}/\bar{E}_m$ (U_o)	0.73
E_{min}/E_{max} (U_d)	0.58
Position	0.00 m (rot: 0°/0°)

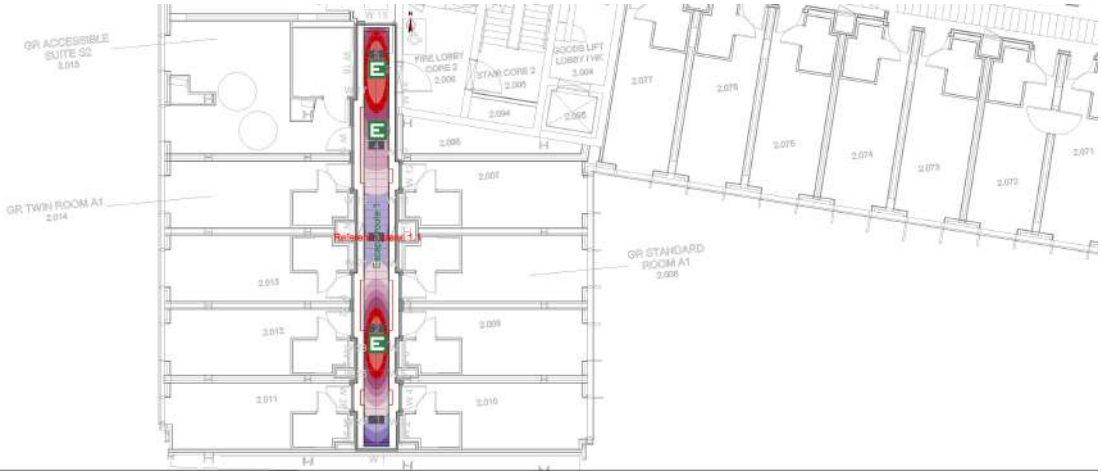
Type No.\Make

1	5 x	Order No.	: Type CLL01 - LP-Panel 6060 Surface 2700
		Luminaire name	: Type CLL01 - LP-Panel 6060 Surface 2700
		Equipment	: 1 x PL6060 21.7 W / 2000 lm

4 2.002 Guestroom Corridor (iv)

4.2 Summary, 2.002 Guestroom Corridor (iv)

4.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.27 m	
Maximum I	: 190 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: 16.49m x 1m (82 x 9 pts), Height = 0.00m					
1	1.42 lx	30.58 lx	1: 21.54	1.11 lx	30.58 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	7.42 lx	10.99 lx
	>= 5 lx	



4 2.002 Guestroom Corridor (iv)

4.2 Summary, 2.002 Guestroom Corridor (iv)

4.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

2 2E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Escape Route (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 208 lm (0%)
Emergency : 208 lm

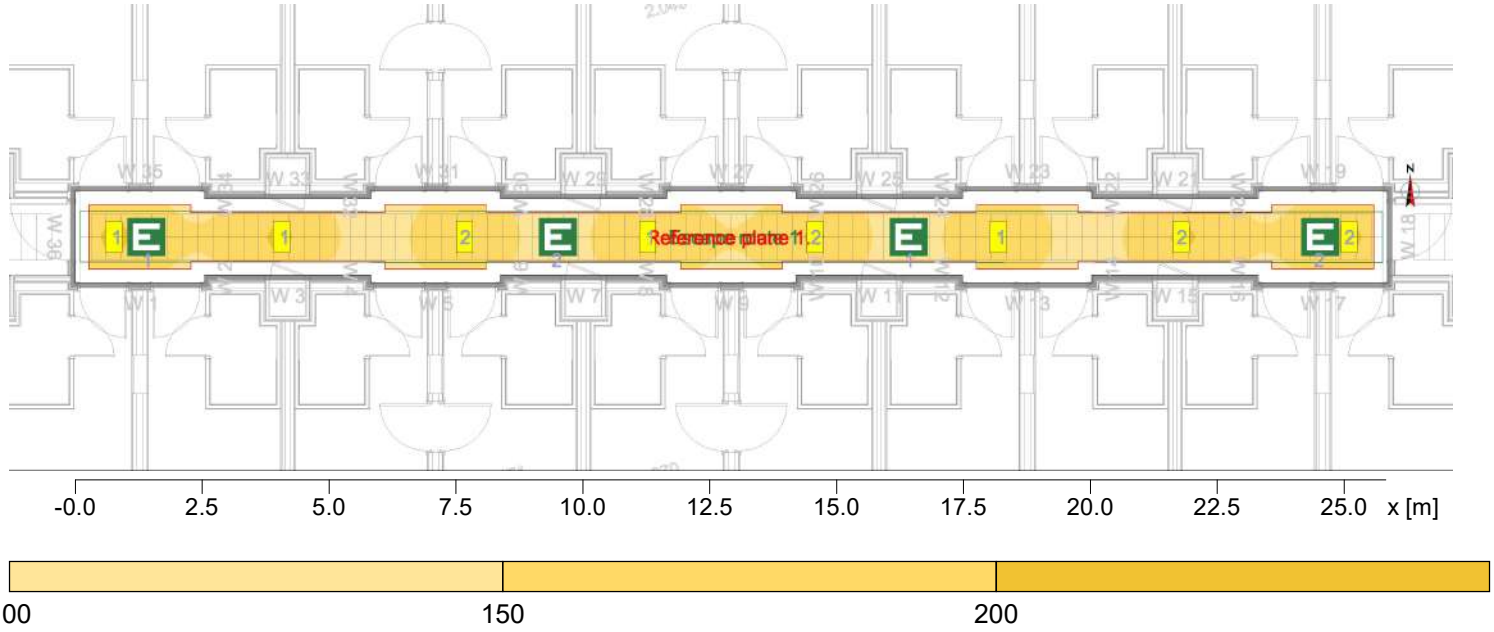
7 1E x

Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

5 2.002 Guestroom Corridor (v)

5.1 Summary, 2.002 Guestroom Corridor (v)

5.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	16000 lm
Total power	173.6 W
Total power per area (42.55 m²)	4.08 W/m² (2.44 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	167 lx
E_{min}	126 lx
$E_{min}/\bar{E}_m$ (U_o)	0.75
E_{min}/E_{max} (U_d)	0.61
Position	0.00 m (rot: 0°/0°)

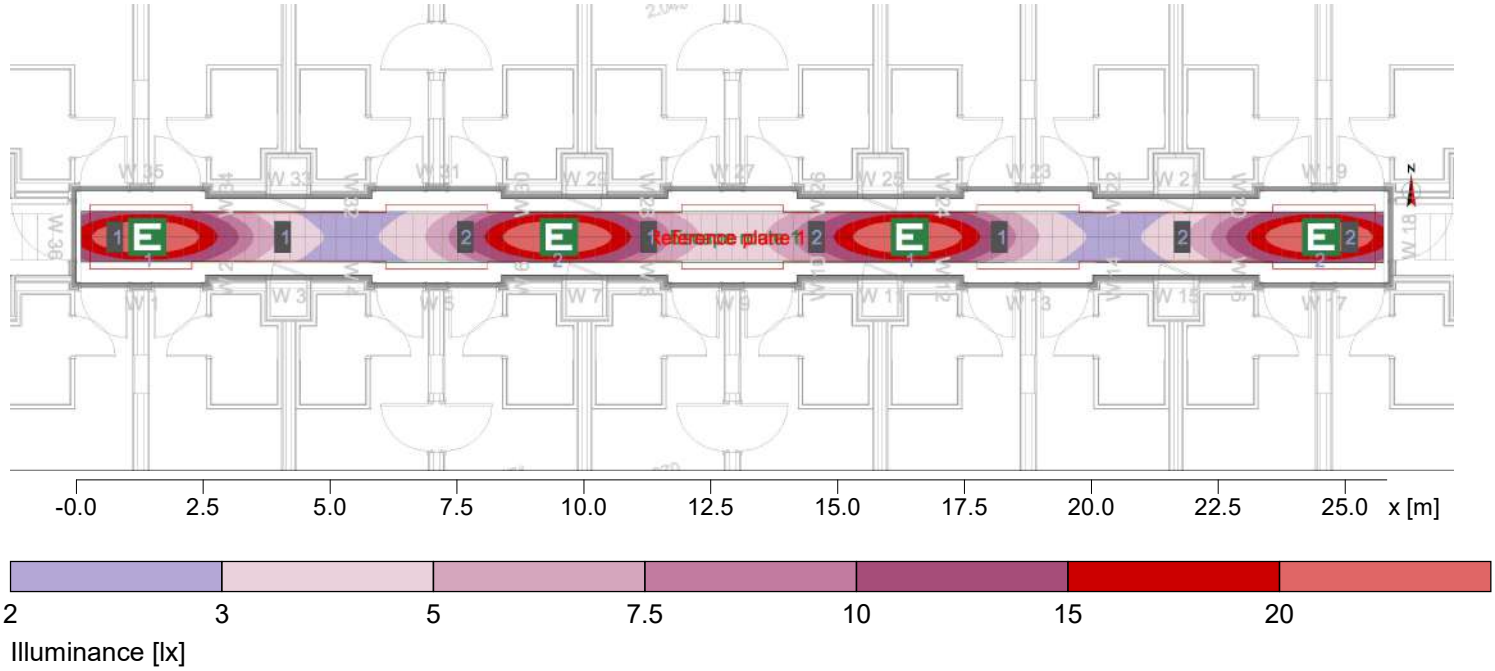
Type No.\Make

1	8 x	Order No.	: Type CLL01 - LP-Panel 6060 Surface 2700
		Luminaire name	: Type CLL01 - LP-Panel 6060 Surface 2700
		Equipment	: 1 x PL6060 21.7 W / 2000 lm

5 2.002 Guestroom Corridor (v)

5.2 Summary, 2.002 Guestroom Corridor (v)

5.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.28 m	
Maximum I	: 190 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 25.63m x 1m (141 x 9 pts), Height = 0.00m					
1	2.82 lx	28.70 lx	1: 10.18	2.20 lx	28.70 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	

Type No.\Make

	Tridonic		
2	4E x	Order No.	: ! -- Emergency Lighting --
		Luminaire name	: 2W Escape Route (Recessed)
		Equipment	: 1 x EM R2A 2W 1 W / 208 lm (0%)
		Emergency	: 208 lm

6 2.002 Guestroom Corridor (vi)

6.1 Summary, 2.002 Guestroom Corridor (vi)

6.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.27 m
Maintenance factor	0.80
Luminaire luminous flux	10000 lm
Total power	108.5 W
Total power per area (24.96 m²)	4.35 W/m² (2.63 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	165 lx
E_{min}	120 lx
$E_{min}/\bar{E}_m$ (U_o)	0.73
E_{min}/E_{max} (U_d)	0.58
Position	0.00 m

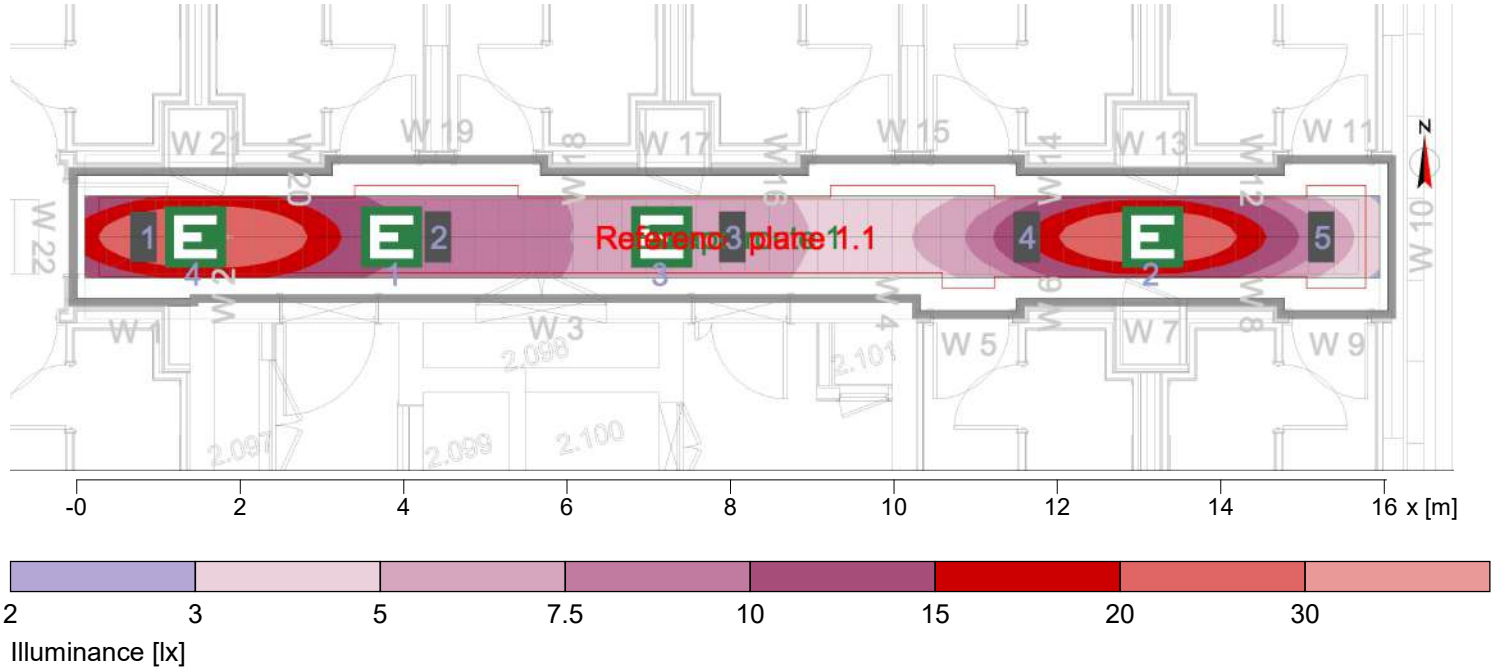
Type No.\Make

1	5 x	Order No.	: Type CLL01 - LP-Panel 6060 Surface 2700
		Luminaire name	: Type CLL01 - LP-Panel 6060 Surface 2700
		Equipment	: 1 x PL6060 21.7 W / 2000 lm

6 2.002 Guestroom Corridor (vi)

6.2 Summary, 2.002 Guestroom Corridor (vi)

6.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.27 m	
Maximum I	: 190 cd	<= 500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 15.83m x 1m (77 x 9 pts), Height = 0.00m					
1	3.70 lx	31.11 lx	1: 8.41	2.71 lx	31.11 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	9.87 lx	14.63 lx
	>= 5 lx	



6 2.002 Guestroom Corridor (vi)

6.2 Summary, 2.002 Guestroom Corridor (vi)

6.2.1.1 Result overview (emergency lighting)

2 Call Point (ii)

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

2	9.05 lx	14.09 lx
	>= 5 lx	



Type No.\Make

Tridonic

2 2E x

Order No.	: ! -- Emergency Lighting --
Luminaire name	: 2W Escape Route (Recessed)
Equipment	: 1 x EM R2A 2W 1 W / 208 lm (0%)
Emergency	: 208 lm

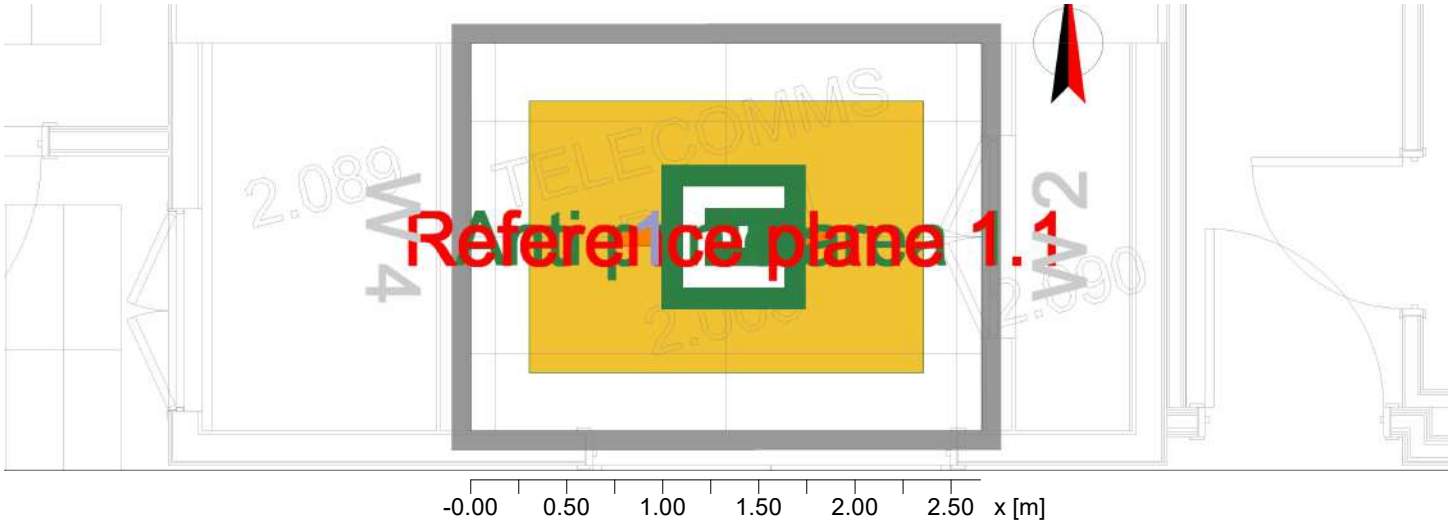
7 2E x

Order No.	: ! -- Emergency Lighting --
Luminaire name	: 2W Anti Panic (Recessed)
Equipment	: 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency	: 217 lm

7 2.003 Telecomms Room

7.1 Summary, 2.003 Telecomms Room

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
Total lamp luminous flux	4400 lm
Luminaire luminous flux	4399 lm
Total power	33.4 W
Total power per area (5.34 m²)	6.25 W/m² (2.35 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	267 lx
E_{min}	231 lx
$E_{min}/\bar{E}_m$ (U_o)	0.86
E_{min}/E_{max} (U_d)	0.77
Position	0.00 m (rot: 0°/0°)

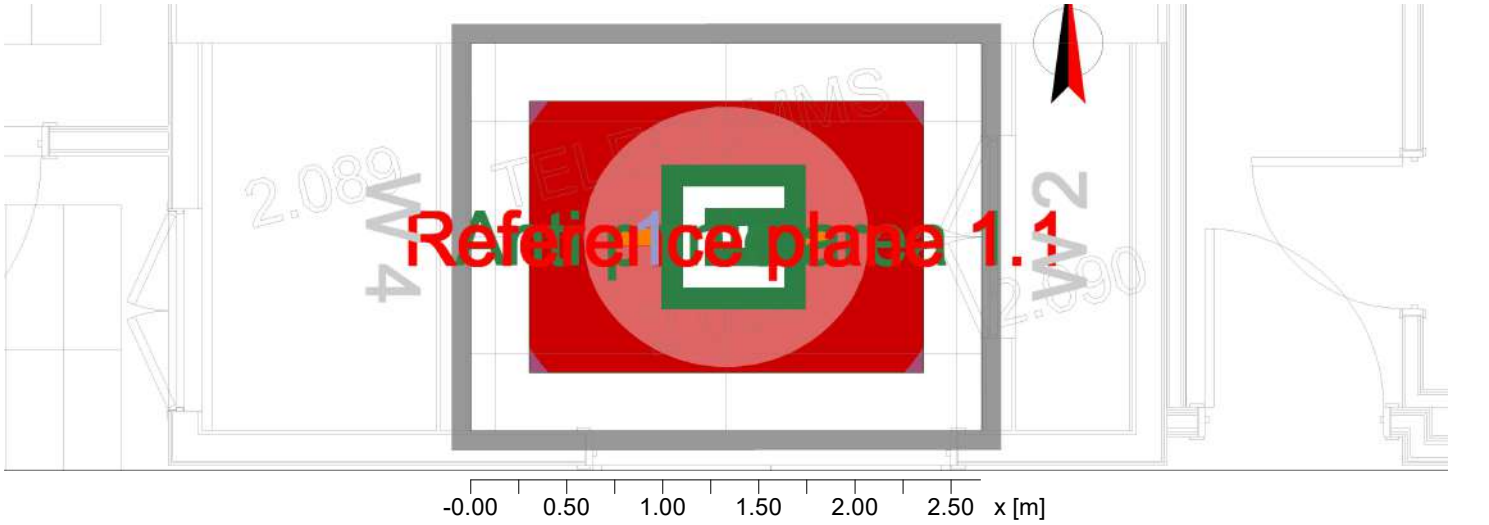
Type No.\Make

		Thorn	
3	1E x	Order No.	: 92901968 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

7 2.003 Telecomms Room

7.2 Summary, 2.003 Telecomms Room

7.2.1.1 Result overview (emergency lighting)





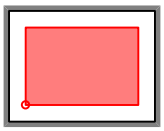
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.33 m	
Maximum I	: 170 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.05m x 1.41m (6 x 4 pts), Height = 0.00m			
1	14.13 lx	24.26 lx	1: 1.72
	>= 0.5 lx		>= 1 : 40



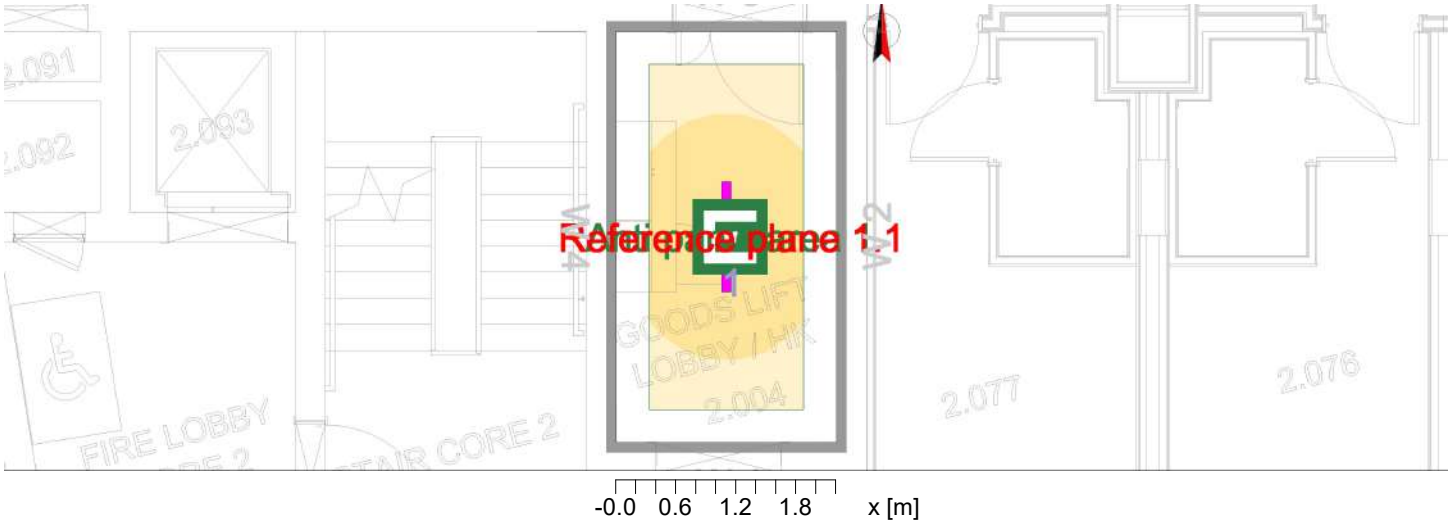
Type No.\Make

		Thorn	
3	1E x	Order No.	: 92901968 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED4300-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A4300-840PCMBHFI 30 W / 4400 lm
		Emergency	: 500 lm (11.4 %)

8 2.004 Goods Lift Lobby HK

8.1 Summary, 2.004 Goods Lift Lobby HK

8.1.1 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	2950 lm
Luminaire luminous flux	2949 lm
Total power	22.9 W
Total power per area (9.02 m²)	2.54 W/m² (2.38 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	107 lx
E_{min}	78 lx
$E_{min}/\bar{E}_m$ (U_o)	0.73
E_{min}/E_{max} (U_d)	0.60
Position	0.00 m (rot: 0°/0°)

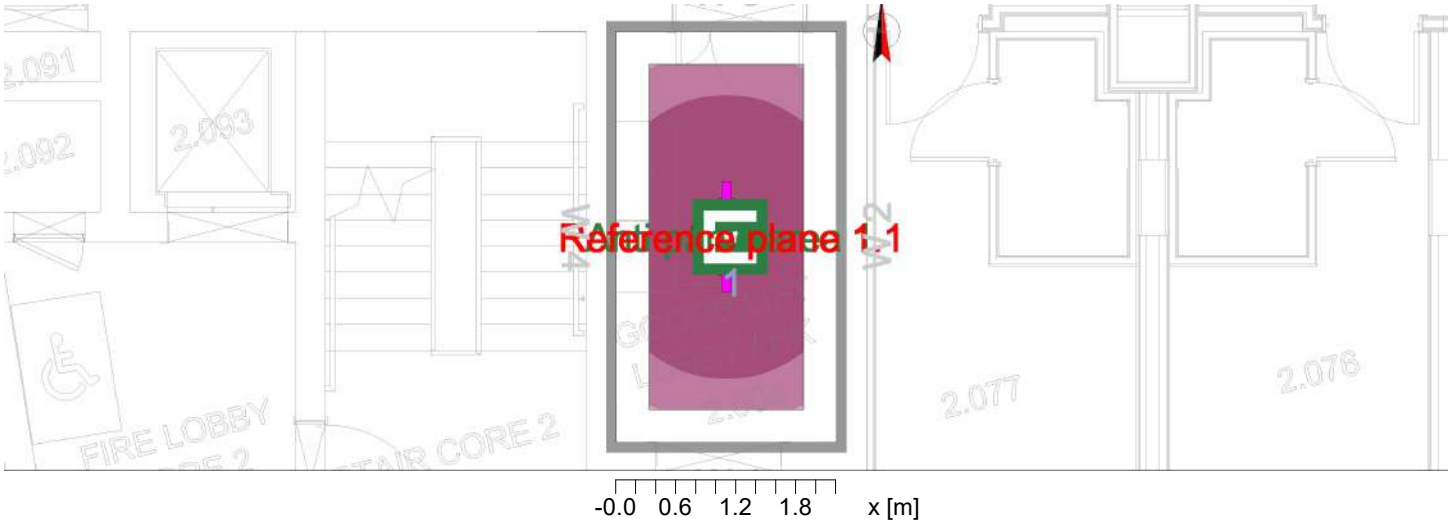
Type No.\Make

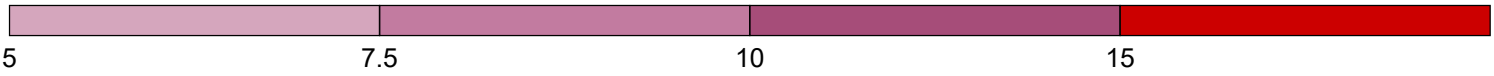
6	1E x	**Thorn**	
		Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

8 2.004 Goods Lift Lobby HK

8.2 Summary, 2.004 Goods Lift Lobby HK

8.2.1.1 Result overview (emergency lighting)





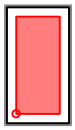
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.93 m	
Maximum I	: 170 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.54m x 3.44m (6 x 13 pts), Height = 0.00m			
1	7.29 lx	15.57 lx	1: 2.14
	>= 0.5 lx		>= 1 : 40



Type No.\Make



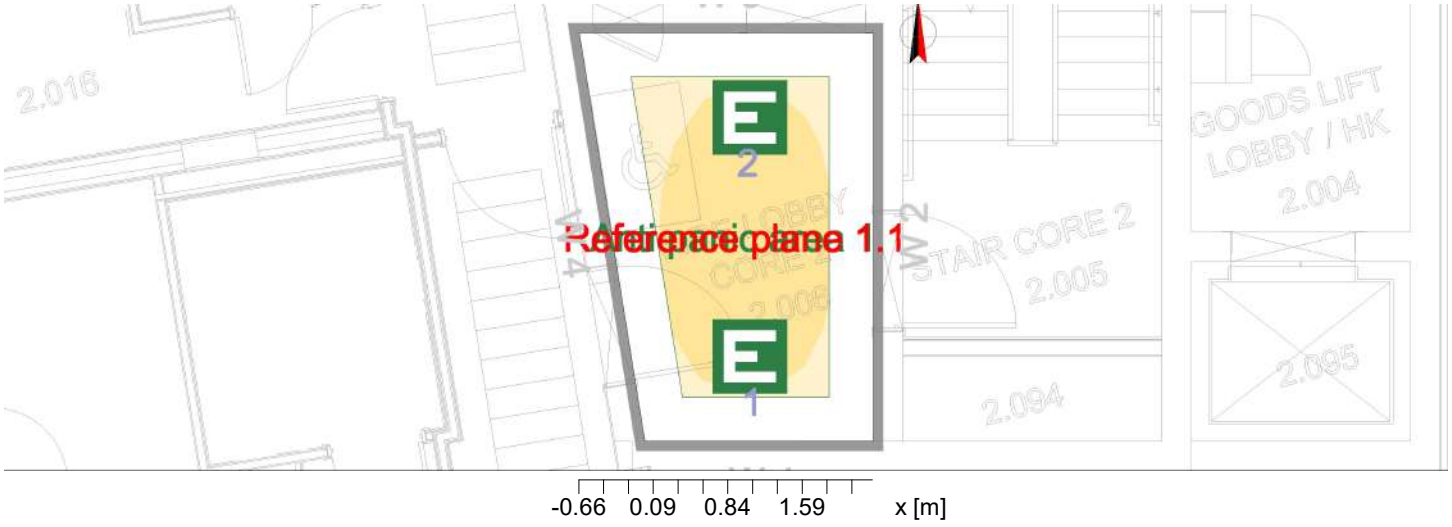
6 1E x **Thorn**

Order No.	: 92902217 -- Emergency Lighting --
Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
Emergency	: 500 lm (16.9 %)

9 2.006 Fire Lobby Core 2

9.1 Summary, 2.006 Fire Lobby Core 2

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	3572 lm
Luminaire luminous flux	3572 lm
Total power	26.4 W
Total power per area (10.77 m²)	2.45 W/m² (2.33 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	105 lx
E_{min}	90 lx
$E_{min}/\bar{E}_m$ (U_o)	0.86
E_{min}/E_{max} (U_d)	0.80
Position	0.00 m (rot: 0°/0°)

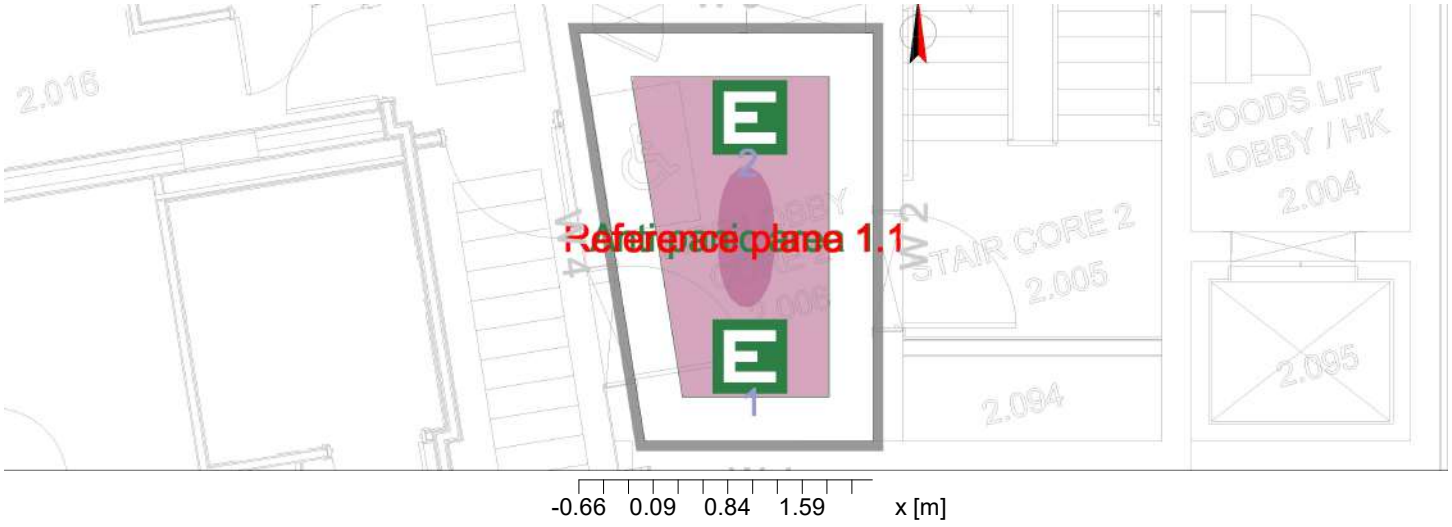
Type No.\Make

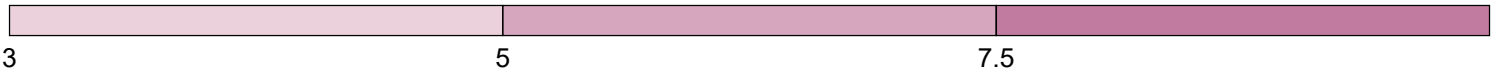
		Thorn	
4	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

9 2.006 Fire Lobby Core 2

9.2 Summary, 2.006 Fire Lobby Core 2

9.2.1.1 Result overview (emergency lighting)





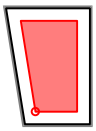
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.97 m	
Maximum I	: 58 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.99m x 3.21m (4 x 7 pts), Height = 0.00m			
1	4.93 lx	7.63 lx	1: 1.55
	>= 0.5 lx		>= 1 : 40



Type No.\Make

Thorn

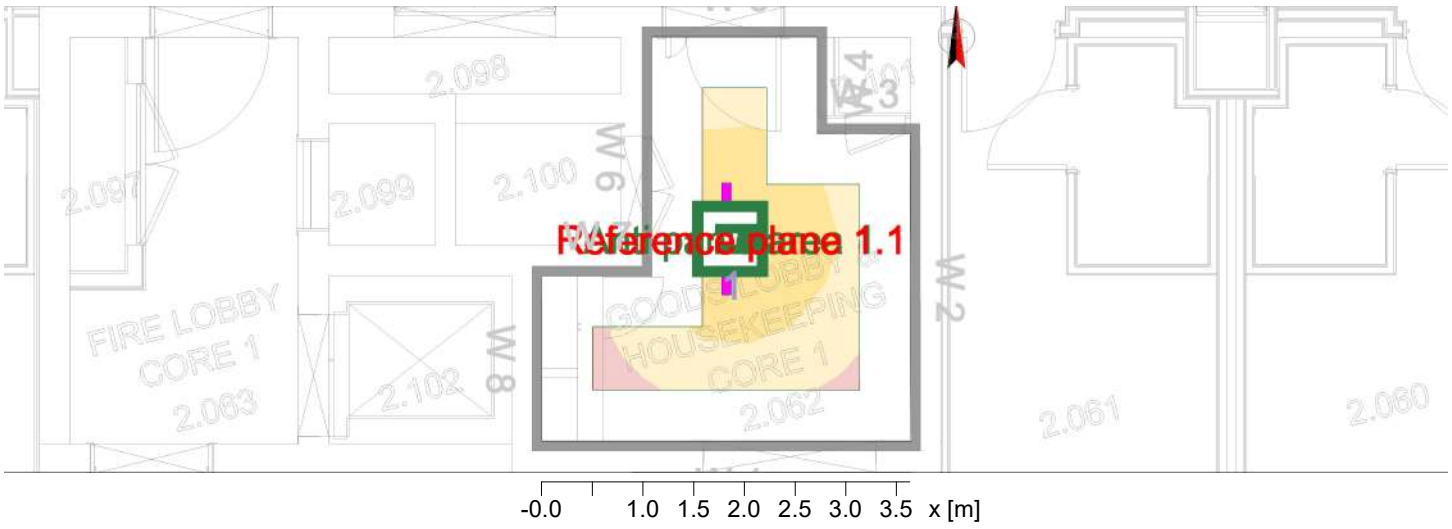
4 2E x

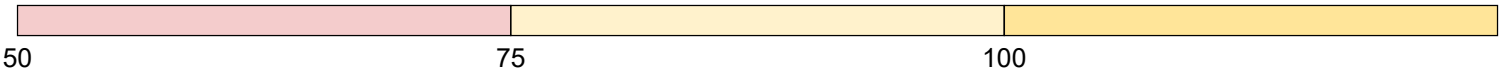
Order No.	: -- Emergency Lighting --
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

10 2.062 Goods Lobby & Housekeeping Core 1

10.1 Summary, 2.062 Goods Lobby & Housekeeping Core 1

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	2950 lm
Luminaire luminous flux	2949 lm
Total power	22.9 W
Total power per area (11.01 m²)	2.08 W/m² (2.04 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	102 lx
E_{min}	70 lx
$E_{min}/\bar{E}_m$ (U_o)	0.69
E_{min}/E_{max} (U_d)	0.57
Position	0.00 m (rot: 0°/0°)

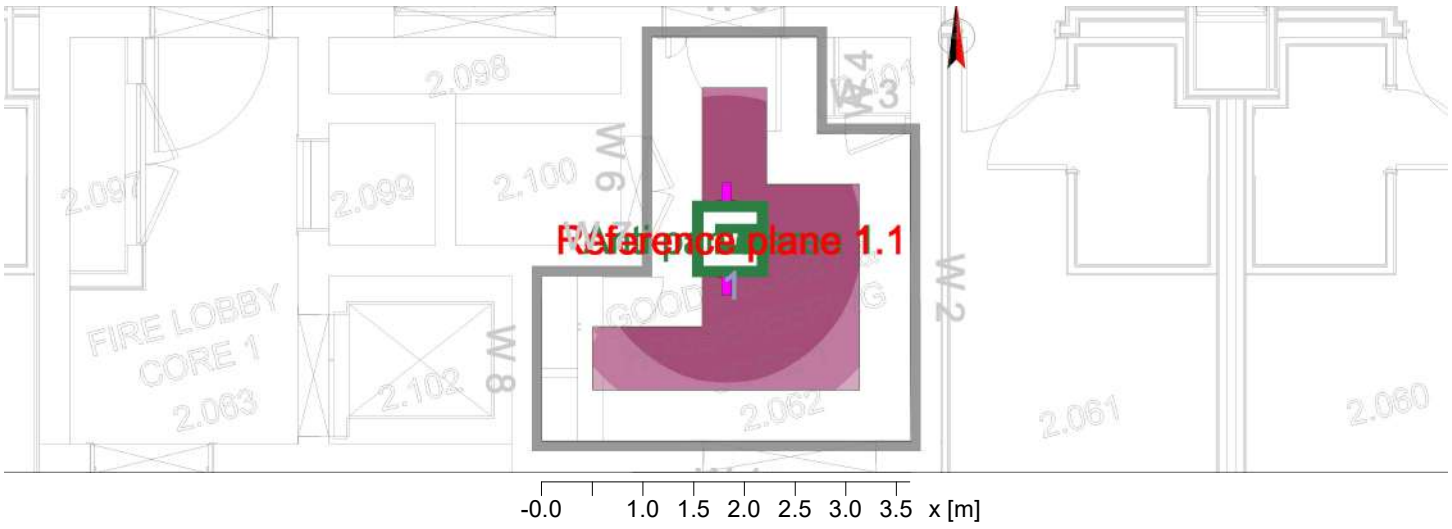
Type No.\Make

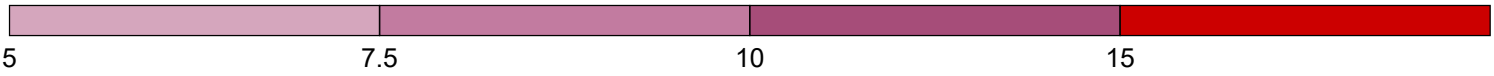
		Thorn	
6	1E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

10 2.062 Goods Lobby & Housekeeping Core 1

10.2 Summary, 2.062 Goods Lobby & Housekeeping Core 1

10.2.1.1 Result overview (emergency lighting)





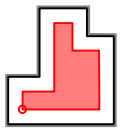
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.93 m	
Maximum I	: 170 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 2.63m x 2.98m (6 x 7 pts), Height = 0.00m			
1	6.21 lx	15.58 lx	1: 2.51
	>= 0.5 lx		>= 1 : 40



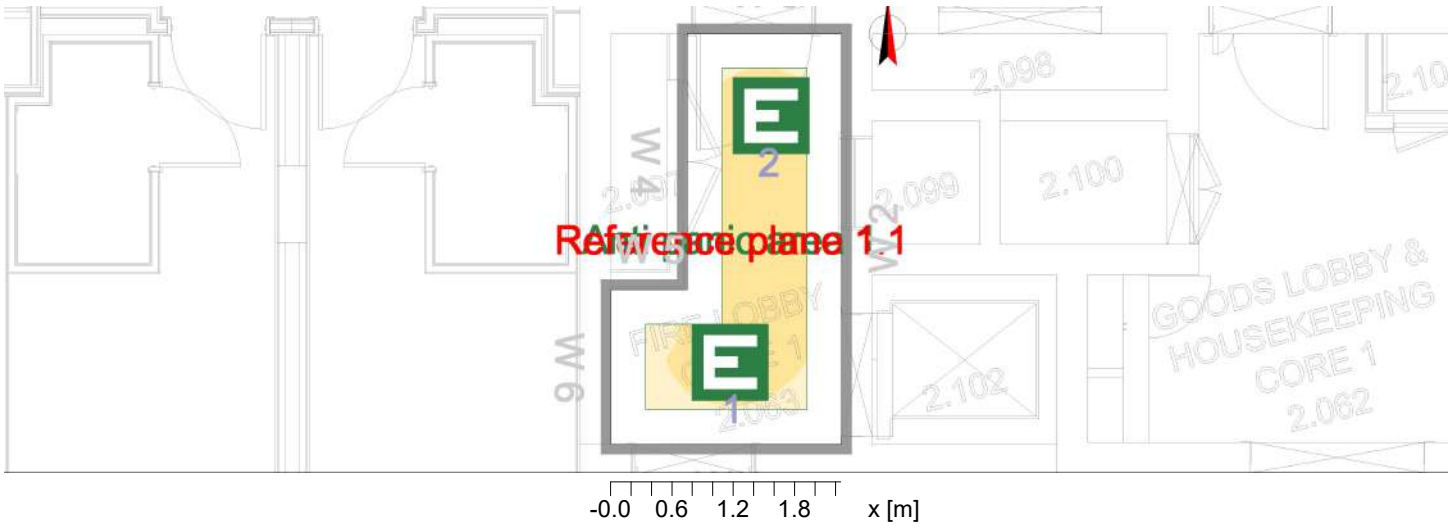
Type No.\Make

		Thorn	
6	1E x	Order No.	: 92902217 -- Emergency Lighting --
		Luminaire name	: AQFPRO S LED2900-840 PC MB HFI E3DUK [STD]
		Equipment	: 1 x Z_A2900-840PCMBHFI 19 W / 2950 lm
		Emergency	: 500 lm (16.9 %)

11 2.063 Fire Lobby Core 1

11.1 Summary, 2.063 Fire Lobby Core 1

11.1.1 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	3572 lm
Luminaire luminous flux	3572 lm
Total power	26.4 W
Total power per area (7.15 m²)	3.69 W/m² (3.40 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	109 lx
E_{min}	81 lx
$E_{min}/\bar{E}_m$ (U_o)	0.75
E_{min}/E_{max} (U_d)	0.69
Position	0.00 m (rot: 0°/0°)

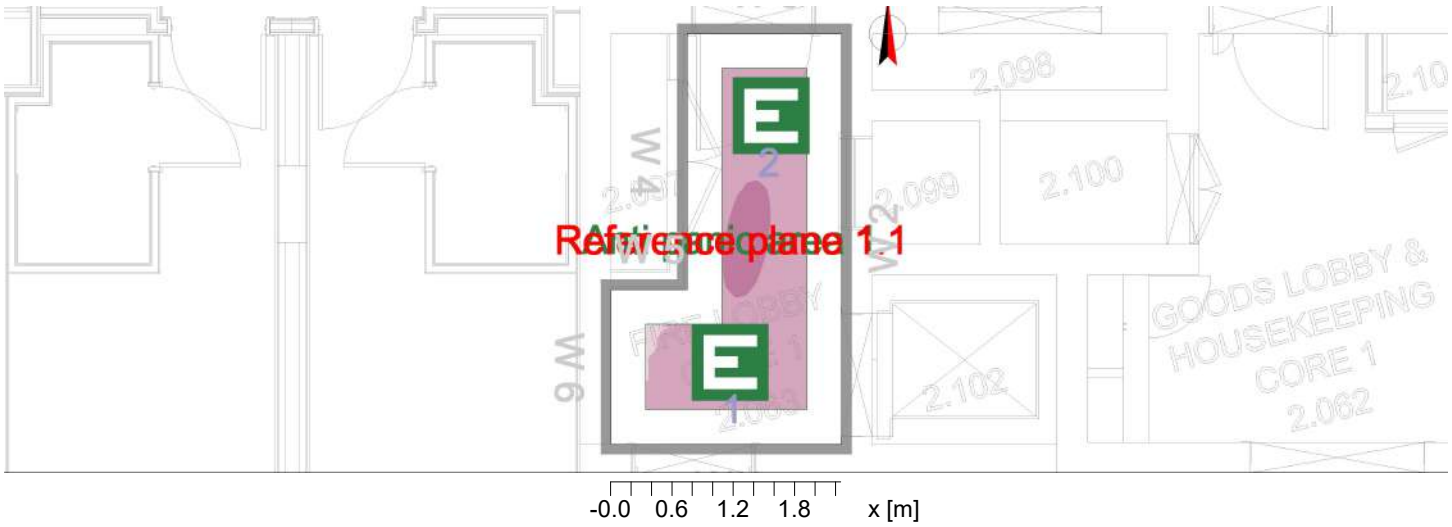
Type No.\Make

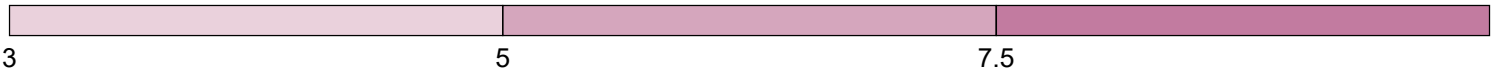
		Thorn	
4	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

11 2.063 Fire Lobby Core 1

11.2 Summary, 2.063 Fire Lobby Core 1

11.2.1.1 Result overview (emergency lighting)





Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.97 m	
Maximum I	: 58 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 1.58m x 3.32m (6 x 12 pts), Height = 0.00m			
1	4.42 lx	7.57 lx	1: 1.71
	>= 0.5 lx		>= 1 : 40



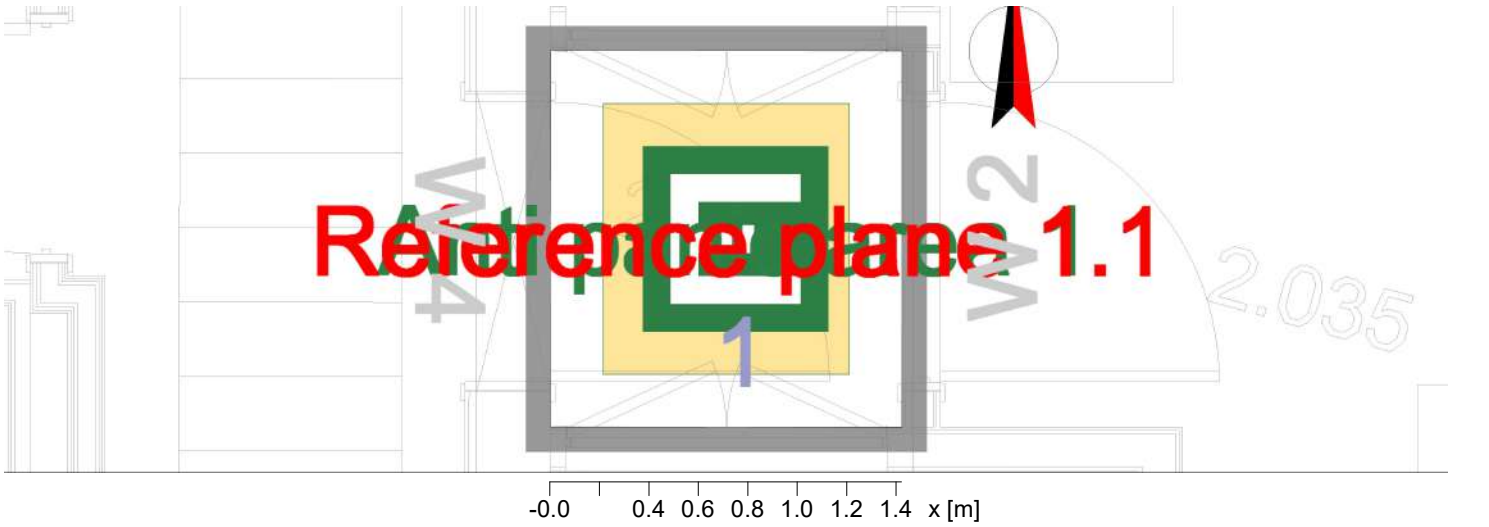
Type No.\Make

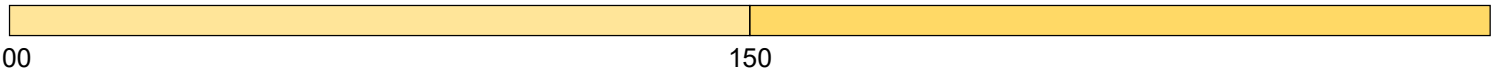
		Thorn	
4	2E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

12 2.078 Fire Lobby Core 4

12.1 Summary, 2.078 Fire Lobby Core 4

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	2350 lm
Luminaire luminous flux	2350 lm
Total power	17.6 W
Total power per area (2.15 m²)	8.17 W/m² (7.13 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	115 lx
E_{min}	109 lx
$E_{min}/\bar{E}_m$ (U_o)	0.95
E_{min}/E_{max} (U_d)	0.90
Position	0.00 m (rot: 0°/0.03°)

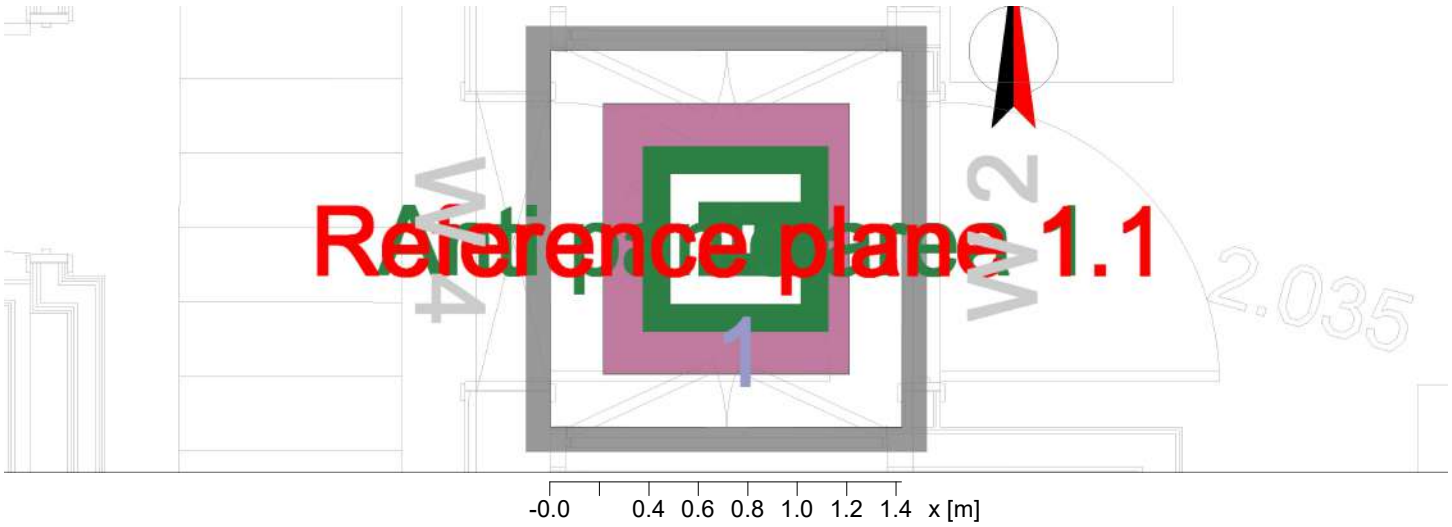
Type No.\Make

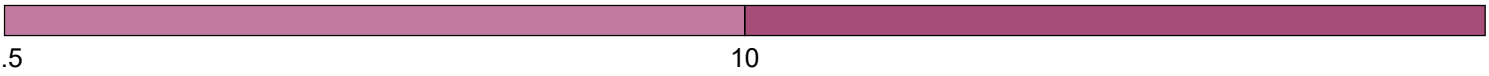
		Thorn	
5	1E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS M 2500 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_2500_HF 17.5 W / 2350 lm
		Emergency	: 325 lm (13.8 %)

12 2.078 Fire Lobby Core 4

12.2 Summary, 2.078 Fire Lobby Core 4

12.2.1.1 Result overview (emergency lighting)





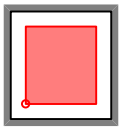
Illuminance [lx]

General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 2.97 m	
Maximum I	: 100 cd	<= 900 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 0.99m x 1.09m (5 x 5 pts), Height = 0.00m			
1	8.37 lx	9.51 lx	1: 1.14
	>= 0.5 lx		>= 1 : 40



Type No.\Make

5 1E x **Thorn**

Order No.	: -- Emergency Lighting --
Luminaire name	: NOVS M 2500 830 DI HFI E3D WH
Equipment	: 1 x NOVS_2500_HF 17.5 W / 2350 lm
Emergency	: 325 lm (13.8 %)

Hotel - Level 05

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	11.03.2025

Project description:

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

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to take account of latest GAs / RCPs from Architect / Space Invaders. Also Emergency Lighting Review doc received from RF 07.02.2025.

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.

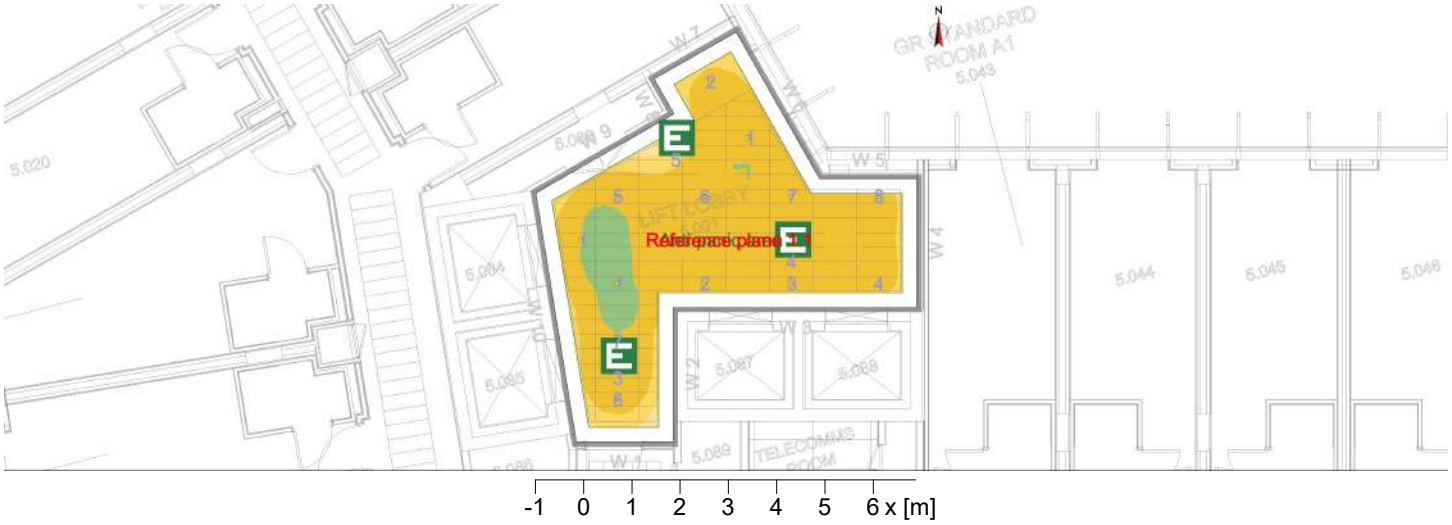
Table of contents

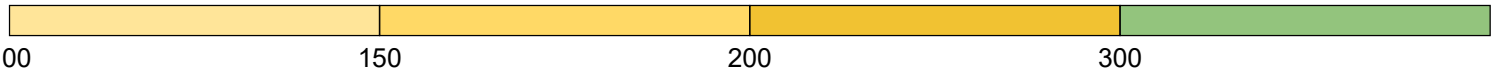
First Page 1
Table of contents 2
1 Lift Lobby
1.1 Summary, Lift Lobby
1.1.1 Result overview, Evaluation area 1 3
1.2 Summary, Lift Lobby
1.2.1.1 Result overview (emergency lighting) 4

1 Lift Lobby

1.1 Summary, 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	12129 lm
Luminaire luminous flux	10900 lm
Total power	182.0 W
Total power per area (34.40 m²)	5.29 W/m² (2.16 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	245 lx
E_{min}	125 lx
$E_{min}/\bar{E}_m$ (U_o)	0.51
E_{min}/E_{max} (U_d)	0.36
Position	0.00 m (rot: 0°/0°)

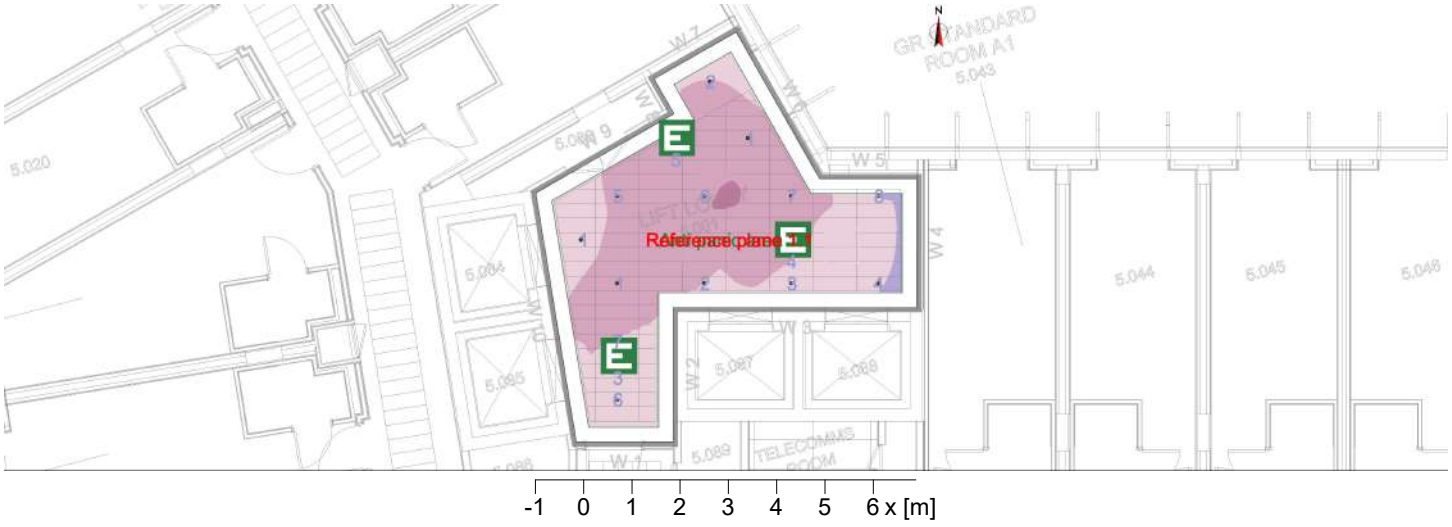
Type No.\Make

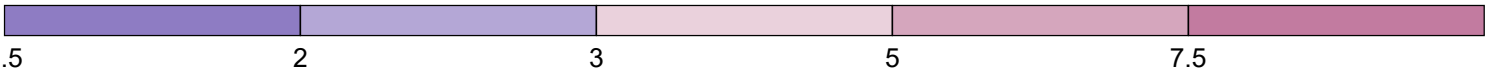
		Chiara Lighting Limited
1	13 x	Order No. : !APRA.X.X LE5.27.14.50.X
		Luminaire name : Arch Pro Round Adjustable, 927.14W.50d
		Equipment : 1 x 2700K 14 W / 933 lm

1 Lift Lobby

1.2 Summary, 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	: 53 cd	<= 500 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
Anti panic area 1			
Calculation field: 7.25m x 7.75m (24 x 25 pts), Height = 0.00m			
1	1.96 lx	7.61 lx	1: 3.88
	>= 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	6.75 lx	9.36 lx
	>= 5 lx	



1 Lift Lobby

1.2 Summary, Lift Lobby

1.2.1.1 Result overview (emergency lighting)

Type No.\Make

Tridonic

2 3E x



Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

Hotel - Level 08

Installation : MCFC Redevelopment

Project number : SY1023-27
Customer : SES
Processed by : S Hollingworth
Date : 26.03.2025

Project description:

Maintenance Factor: 0.8

Rev A - Initial issue.

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.

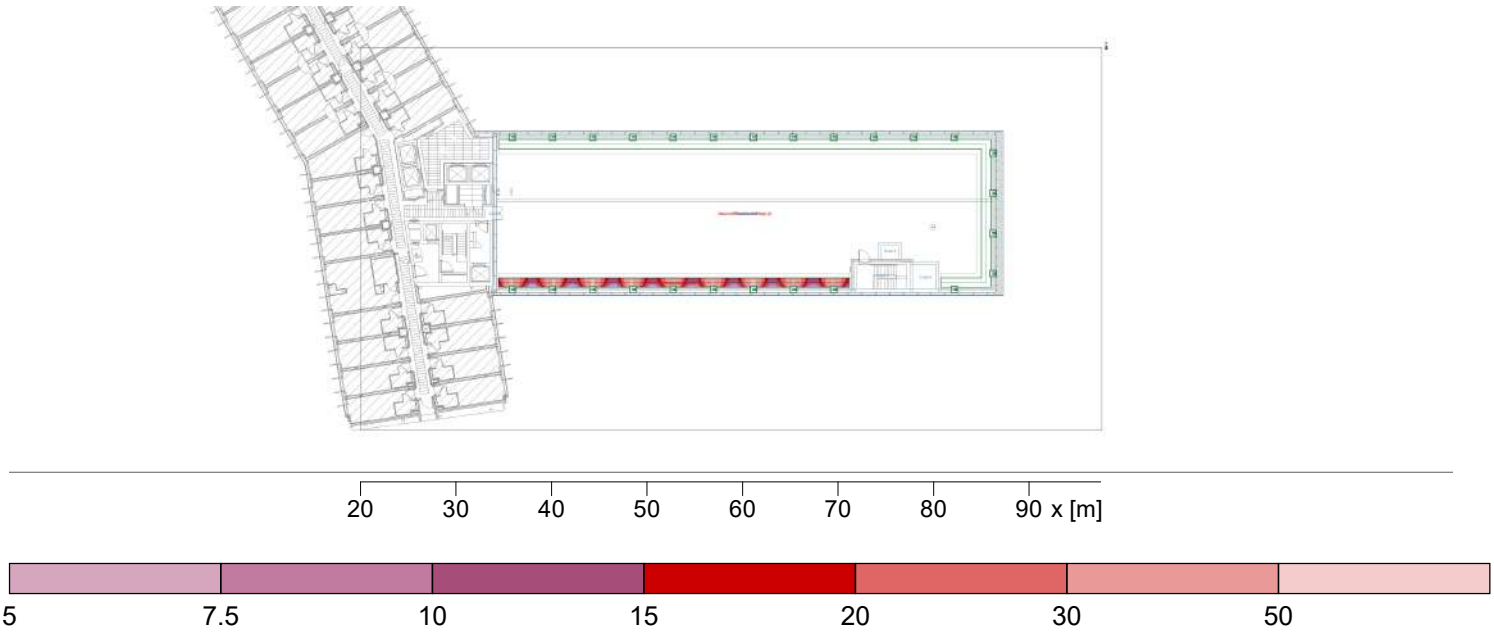
Table of contents

First Page 1
Table of contents 2
1 Exterior 1
1.1 Summary, Exterior 1
1.1.1 Result overview, Assumed Perimeter Walkway (i) 3
1.1.2 Result overview, Assumed Perimeter Walkway (ii) 4
1.2 Summary, Exterior 1
1.2.1.1 Result overview (emergency lighting) 5

1 Exterior 1

1.1 Summary, Exterior 1

1.1.1 Result overview, Assumed Perimeter Walkway (i)



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.00 m
Height (phot.centre) [m]:	4.20 m
Maintenance factor	0.80
Total luminous flux	26000 lm
Total power	197.6 W
Total power per area (3100.00 m²)	0.06 W/m²

Illuminance

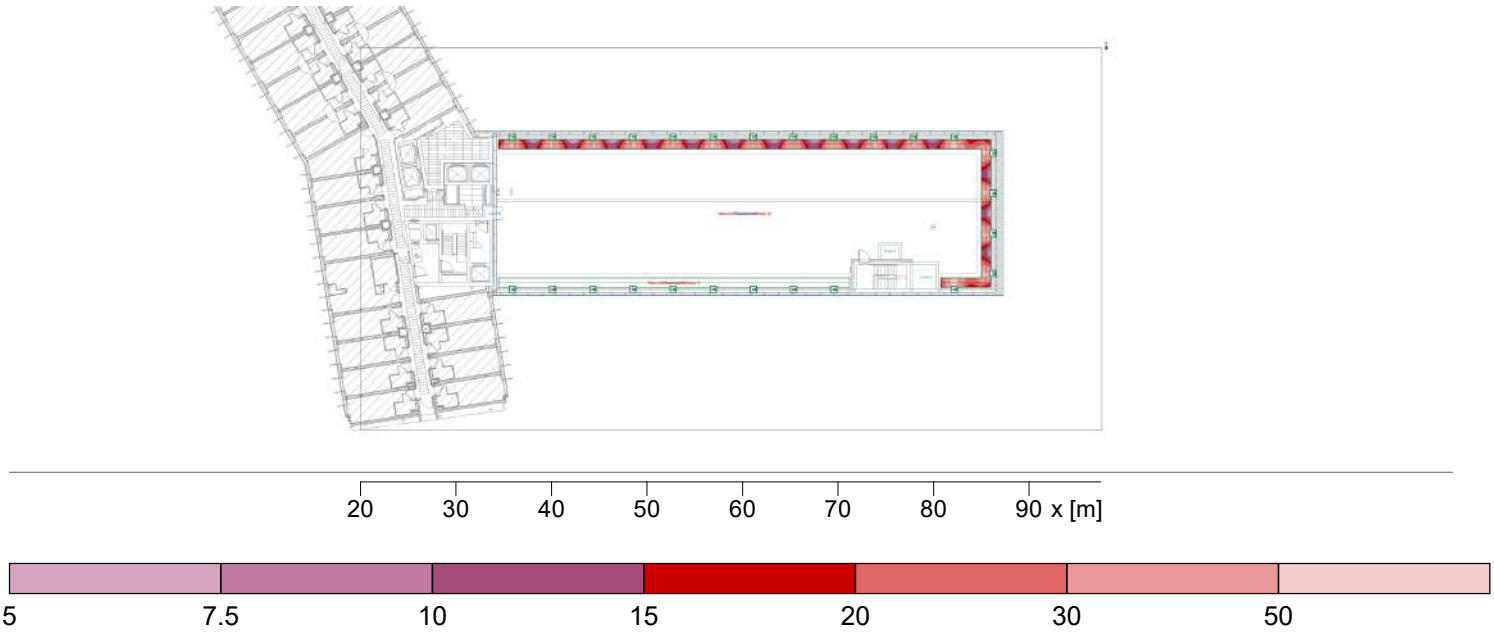
Average illuminance	$\bar{E}_m$	26.9 lx
Minimum illuminance	E_{min}	7.2 lx
Maximum illuminance	E_{max}	55 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.71 (0.27)
Diversity U_d	E_{min}/E_{max}	1:7.59 (0.13)

Type No.\Make

		Thorn	
1	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

1.1 Summary, Exterior 1

1.1.2 Result overview, Assumed Perimeter Walkway (ii)



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.00 m
Height (phot.centre) [m]:	4.20 m
Maintenance factor	0.80
Total luminous flux	26000 lm
Total power	197.6 W
Total power per area (3100.00 m²)	0.06 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	27.7 lx
Minimum illuminance	E_{min}	7.1 lx
Maximum illuminance	E_{max}	59 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.92 (0.26)
Diversity U_d	E_{min}/E_{max}	1:8.35 (0.12)

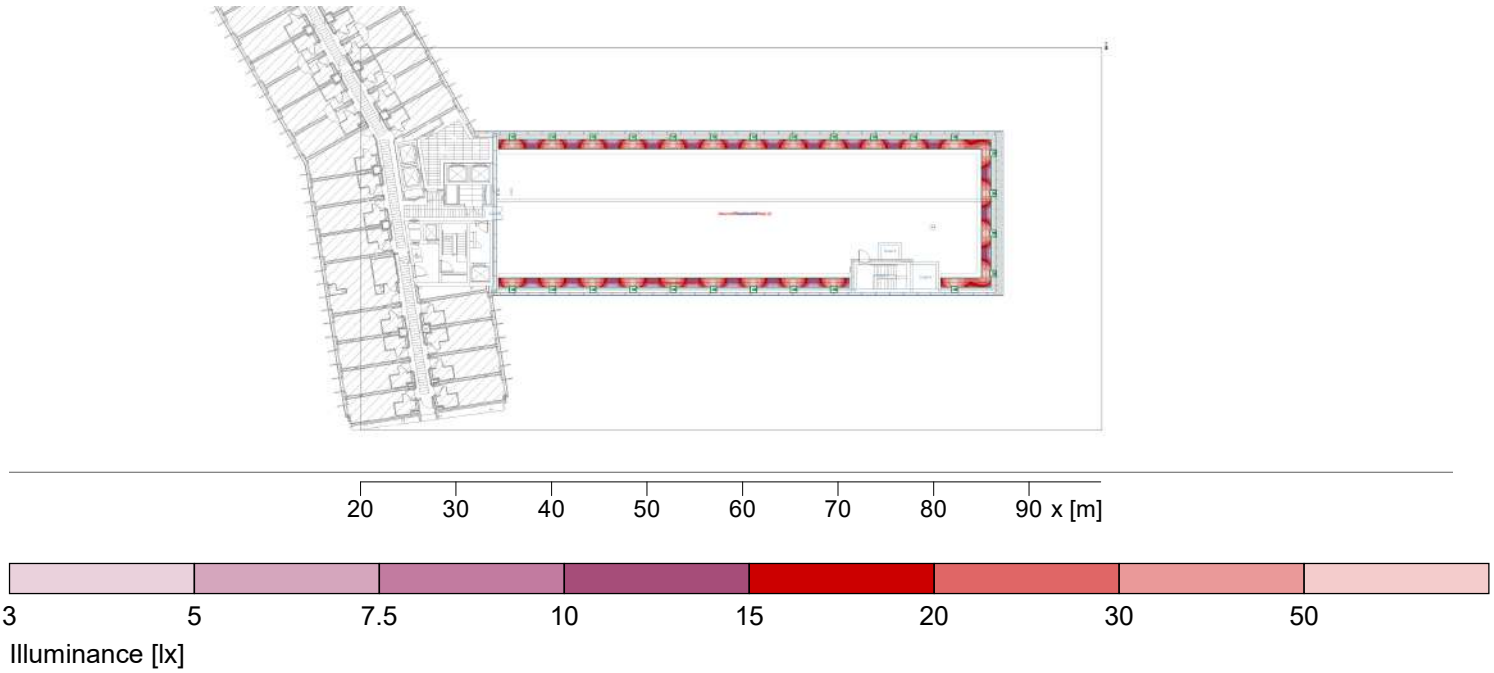
Type No.\Make

		Thorn	
1	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

1 Exterior 1

1.2 Summary, Exterior 1

1.2.1.1 Result overview (emergency lighting)

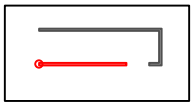


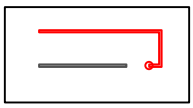
General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.20 m	
Maximum I	: 290 cd	<= 3500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]
Escape route 1					
Calculation field: 36.67m x 1m (184 x 9 pts), Height = 3.00m					
1	7.82 lx	57.93 lx	1: 7.41	3.79 lx	57.93 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	
Escape route 2					
Calculation field: 70.18m x 1m (352 x 9 pts), Height = 3.00m					
2	9.19 lx	60.83 lx	1: 6.62	4.35 lx	60.83 lx
	>= 1 lx		>= 1 : 40	>= 0.5 lx	





Type No.\Make

1 Exterior 1

1.2 Summary, Exterior 1

1.2.1.1 Result overview (emergency lighting)

		Thorn	
1	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

Hotel - Level 09

Installation : MCFC Redevelopment

Project number : SY1023-27
Customer : SES
Processed by : S Hollingworth
Date : 26.03.2025

Project description:

Maintenance Factor: 0.8

Rev A - Initial issue.

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.

Table of contents

First Page 1
Table of contents 2
1 Exterior 1
1.1 Summary, Exterior 1
1.1.1 Result overview, Assumed Perimeter Walkway (i) 3
1.1.2 Result overview, Assumed Perimeter Walkway (ii) 4
1.1.3 Result overview, Assumed Perimeter Walkway (iii) 5
1.1.4 Result overview, Assumed Perimeter Walkway (iv) 6
1.2 Summary, Exterior 1
1.2.1.1 Result overview (emergency lighting) 7

1 Exterior 1

1.1 Summary, Exterior 1

1.1.1 Result overview, Assumed Perimeter Walkway (i)



-8 2 7 12 22 32 42 x [m]

7.5 10 15 20 30 50

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.00 m
Height (phot.centre) [m]:	4.20 m
Maintenance factor	0.80
Total luminous flux	30000 lm
Total power	228 W
Total power per area (3173.77 m²)	0.07 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	29.4 lx
Minimum illuminance	E_{min}	7.6 lx
Maximum illuminance	E_{max}	58.5 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.88 (0.26)
Diversity U_d	E_{min}/E_{max}	1:7.72 (0.13)

Type No.\Make

		Thorn	
2	30E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

1.1 Summary, Exterior 1

1.1.2 Result overview, Assumed Perimeter Walkway (ii)



-8 2 7 12 22 32 42 x [m]

7.5 10 15 20 30 50

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.00 m
Height (phot.centre) [m]:	4.20 m
Maintenance factor	0.80
Total luminous flux	30000 lm
Total power	228 W
Total power per area (3173.77 m²)	0.07 W/m²

Illuminance

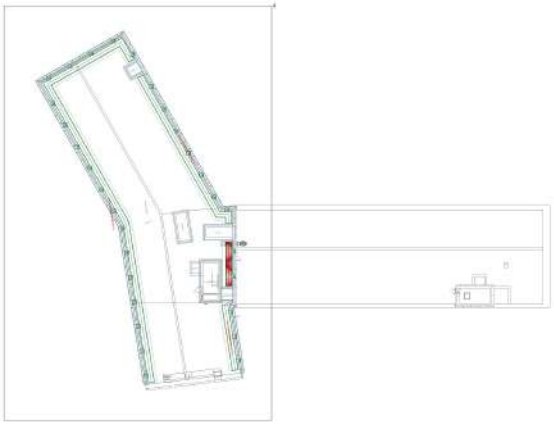
Average illuminance	$\bar{E}_m$	28.9 lx
Minimum illuminance	E_{min}	8.1 lx
Maximum illuminance	E_{max}	55.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.58 (0.28)
Diversity U_d	E_{min}/E_{max}	1:6.91 (0.14)

Type No.\Make

		Thorn	
2	30E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

1.1 Summary, Exterior 1

1.1.3 Result overview, Assumed Perimeter Walkway (iii)



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.00 m
Height (phot.centre) [m]:	4.20 m
Maintenance factor	0.80
Total luminous flux	30000 lm
Total power	228 W
Total power per area (3173.77 m²)	0.07 W/m²

Illuminance

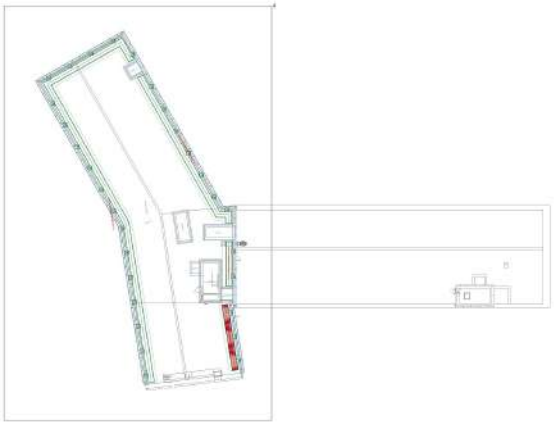
Average illuminance	$\bar{E}_m$	27.1 lx
Minimum illuminance	E_{min}	6.7 lx
Maximum illuminance	E_{max}	62.9 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.02 (0.25)
Diversity U_d	E_{min}/E_{max}	1:9.34 (0.11)

Type No.\Make

		Thorn	
2	30E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

1.1 Summary, Exterior 1

1.1.4 Result overview, Assumed Perimeter Walkway (iv)



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.00 m
Height (phot.centre) [m]:	4.20 m
Maintenance factor	0.80
Total luminous flux	30000 lm
Total power	228 W
Total power per area (3173.77 m²)	0.07 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	25.5 lx
Minimum illuminance	E_{min}	6.3 lx
Maximum illuminance	E_{max}	54.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.08 (0.25)
Diversity U_d	E_{min}/E_{max}	1:8.74 (0.11)

Type No.\Make

		Thorn	
2	30E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: ESCORT 1000 840 HFIX E3D
		Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
		Emergency	: 1000 lm (100.0 %)

1 Exterior 1

1.2 Summary, Exterior 1

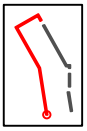
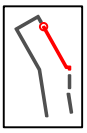
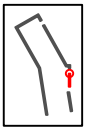
1.2.1.1 Result overview (emergency lighting)



General

Calculation algorithm used	: Direct component	
Maintenance factor	: 0.8	
Height (phot.centre)	: 4.20 m	
Maximum I	: 290 cd	<= 3500 cd

Escape routes:

No.	Central axis Emin [lx]	Emax [lx]	Ud	Surface Emin [lx]	Emax [lx]	
Escape route 1						
Calculation field: 72.26m x 1m (724 x 9 pts), Height = 3.00m						
1	9.13 lx	61.18 lx	1: 6.70	4.41 lx	61.32 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		
Escape route 2						
Calculation field: 30.07m x 1m (302 x 9 pts), Height = 3.00m						
2	2.90 lx	57.81 lx	1: 19.93	1.45 lx	57.81 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		
Escape route 3						
Calculation field: 7.5m x 1m (76 x 9 pts), Height = 3.00m						
3	7.96 lx	56.38 lx	1: 7.08	3.81 lx	56.38 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		

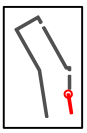
1 Exterior 1

1.2 Summary, Exterior 1

1.2.1.1 Result overview (emergency lighting)

Escape route 4

Calculation field: 11.2m x 1m (113 x 9 pts), Height = 3.00m



4	10.88 lx	56.79 lx	1: 5.22	5.73 lx	57.93 lx	
	>= 1 lx		>= 1 : 40	>= 0.5 lx		

Type No.\Make

Thorn

2 30E x

Order No.	: -- Emergency Lighting --
Luminaire name	: ESCORT 1000 840 HFIX E3D
Equipment	: 1 x ESC_1000 7.6 W / 1000 lm
Emergency	: 1000 lm (100.0 %)

Hotel - Guest Rooms

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	12.03.2025

Project description:

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

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to take account of latest GAs / RCPs from Architect / Space Invaders.

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.

Table of contents

First Page 1
Table of contents 2
1 GR Standard A1
1.1 Summary, GR Standard A1
1.1.1 Result overview, Evaluation area 1 4
2 GR Standard A1.1
2.1 Summary, GR Standard A1.1
2.1.1 Result overview, Evaluation area 1 6
3 GR Standard A2
3.1 Summary, GR Standard A2
3.1.1 Result overview, Evaluation area 1 8
4 GR Twin A1
4.1 Summary, GR Twin A1
4.1.1 Result overview, Evaluation area 1 10
5 GR Small Deluxe D1
5.1 Summary, GR Small Deluxe D1
5.1.1 Result overview, Evaluation area 1 12
6 GR Accessible Deluxe D2
6.1 Summary, GR Accessible Deluxe D2
6.1.1 Result overview, Evaluation area 1 14
7 GR Accessible Deluxe D3
7.1 Summary, GR Accessible Deluxe D3
7.1.1 Result overview, Evaluation area 1 16
8 GR Accessible Deluxe D4
8.1 Summary, GR Accessible Deluxe D4
8.1.1 Result overview, Evaluation area 1 18
9 GR Accessible Deluxe D5
9.1 Summary, GR Accessible Deluxe D5
9.1.1 Result overview, Evaluation area 1 20
10 GR Accessible Deluxe D5.1
10.1 Summary, GR Accessible Deluxe D5.1
10.1.1 Result overview, Evaluation area 1 22
11 GR Suite S1
11.1 Summary, GR Suite S1
11.1.1 Result overview, Evaluation area 1 24
12 GR Accessible Suite S2
12.1 Summary, GR Accessible Suite S2
12.1.1 Result overview, Evaluation area 1 26
13 Standard Ensuite
13.1 Summary, Standard Ensuite
13.1.1 Result overview, Evaluation area 1 28
14 Accessible Ensuite (i)
14.1 Summary, Accessible Ensuite (i)
14.1.1 Result overview, Evaluation area 1 29
15 Accessible Ensuite (ii)
15.1 Summary, Accessible Ensuite (ii)
15.1.1 Result overview, Evaluation area 1 30
16 Accessible Ensuite (iii)
16.1 Summary, Accessible Ensuite (iii)
16.1.1 Result overview, Evaluation area 1 31

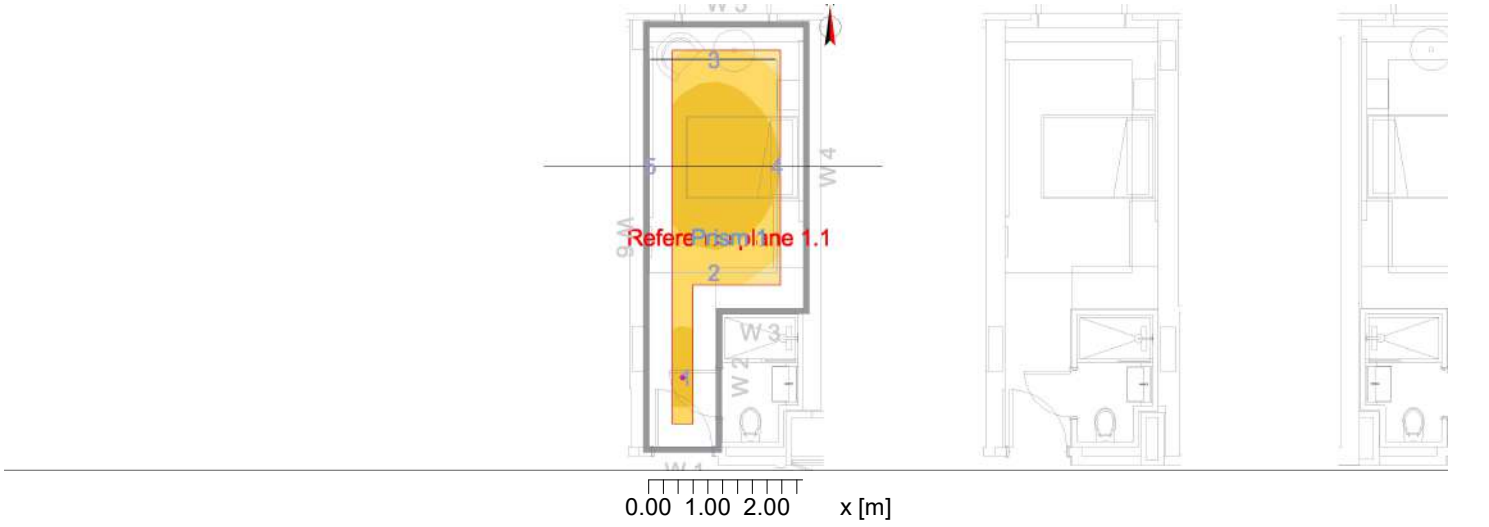
Table of contents

17 Accessible Ensuite (iv)
17.1 Summary, Accessible Ensuite (iv)
17.1.1 Result overview, Evaluation area 1 32
18 Large Suite Ensuite
18.1 Summary, Large Suite Ensuite
18.1.1 Result overview, Evaluation area 1 33

1 GR Standard A1

1.1 Summary, GR Standard A1

1.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	14493 lm
Effective lamp luminous flux	10425 lm (dimmed to 71.93%)
Luminaire luminous flux	14396 lm
Effective luminaire luminous flux	10329 lm (dimmed to 71.75%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	149.6 W
Total power per area (14.92 m²)	10.02 W/m² (4.82 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	208 lx
E_{min}	141 lx
$E_{min}/\bar{E}_m$ (U_o)	0.68
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m

Type No.\Make

1 GR Standard A1

1.1 Summary, GR Standard A1

1.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

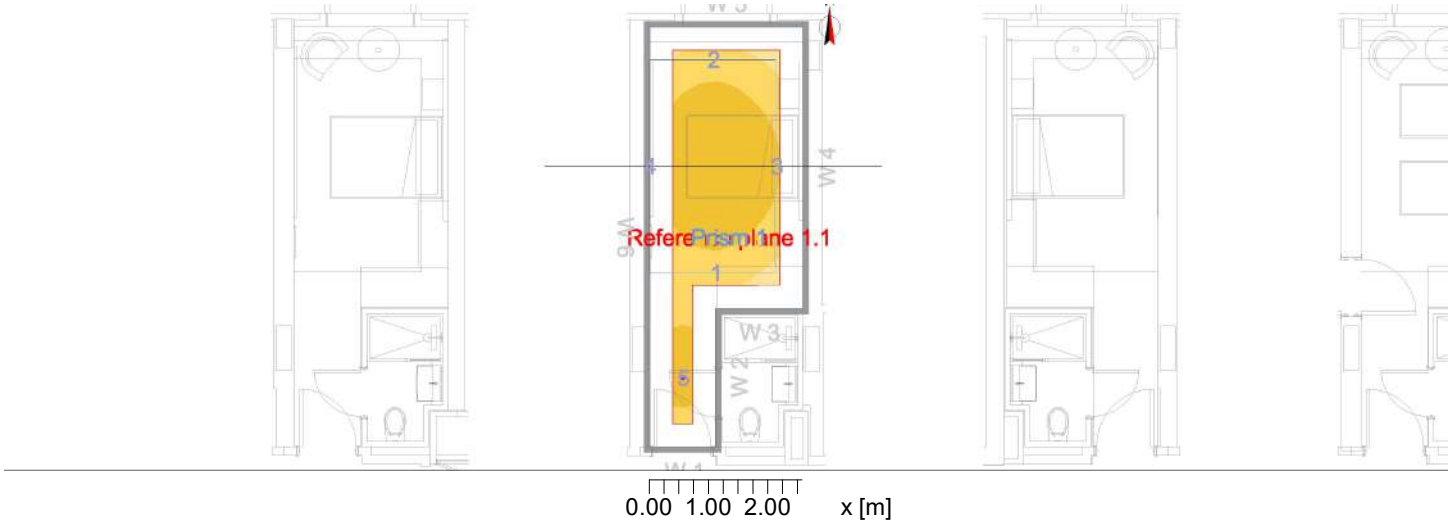
2 2 x
Order No. : !2.1m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 25.2 W / 2520 lm

3 2 x
Order No. : !3.55m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42.6 W / 4260 lm

2 GR Standard A1.1

2.1 Summary, GR Standard A1.1

2.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	14493 lm
Effective lamp luminous flux	10425 lm (dimmed to 71.93%)
Luminaire luminous flux	14396 lm
Effective luminaire luminous flux	10329 lm (dimmed to 71.75%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	149.6 W
Total power per area (14.78 m²)	10.12 W/m² (4.84 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	209 lx
E_{min}	142 lx
$E_{min}/\bar{E}_m$ (U_o)	0.68
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m

Type No.\Make

2 GR Standard A1.1

2.1 Summary, GR Standard A1.1

2.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

2 2 x
Order No. : !2.1m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 25.2 W / 2520 lm

3 2 x
Order No. : !3.55m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42.6 W / 4260 lm

3 GR Standard A2

3.1 Summary, GR Standard A2

3.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	14493 lm
Effective lamp luminous flux	10425 lm (dimmed to 71.93%)
Luminaire luminous flux	14396 lm
Effective luminaire luminous flux	10329 lm (dimmed to 71.75%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	149.6 W
Total power per area (14.64 m²)	10.22 W/m² (4.91 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	208 lx
E_{min}	141 lx
$E_{min}/\bar{E}_m$ (U_o)	0.68
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m

Type No.\Make

3 GR Standard A2

3.1 Summary, GR Standard A2

3.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

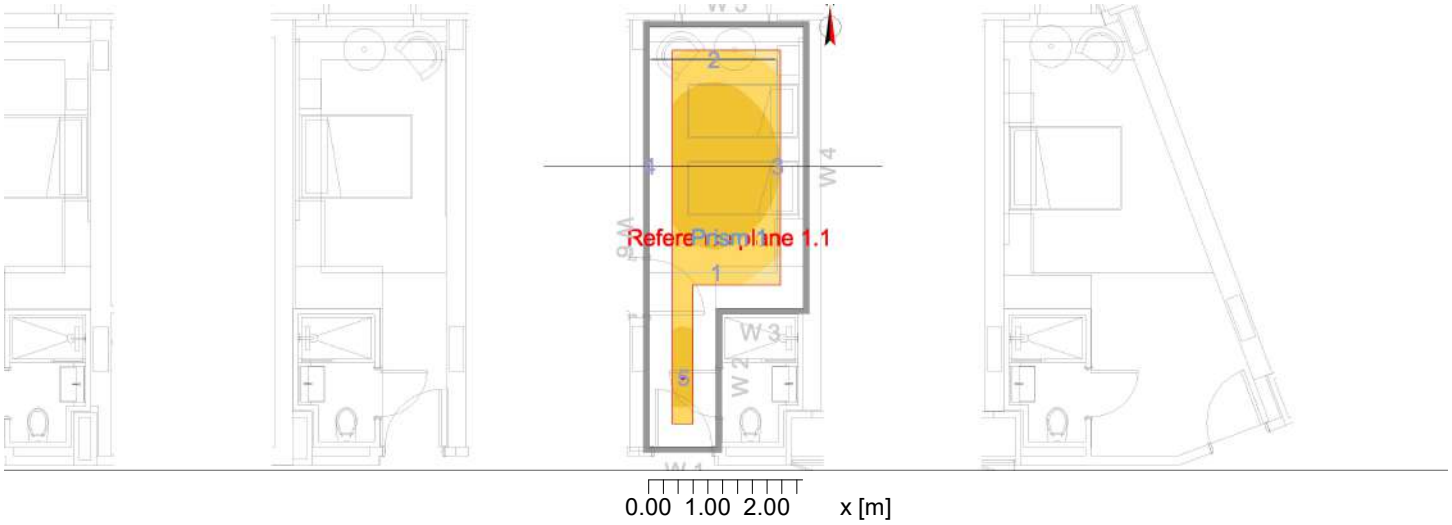
2 2 x
Order No. : !2.1m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 25.2 W / 2520 lm

3 2 x
Order No. : !3.55m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42.6 W / 4260 lm

4 GR Twin A1

4.1 Summary, GR Twin A1

4.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	14493 lm
Effective lamp luminous flux	10425 lm (dimmed to 71.93%)
Luminaire luminous flux	14396 lm
Effective luminaire luminous flux	10329 lm (dimmed to 71.75%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	149.6 W
Total power per area (14.92 m²)	10.02 W/m² (4.82 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	208 lx
E_{min}	141 lx
$E_{min}/\bar{E}_m$ (U_o)	0.68
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m

Type No.\Make

4 GR Twin A1

4.1 Summary, GR Twin A1

4.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

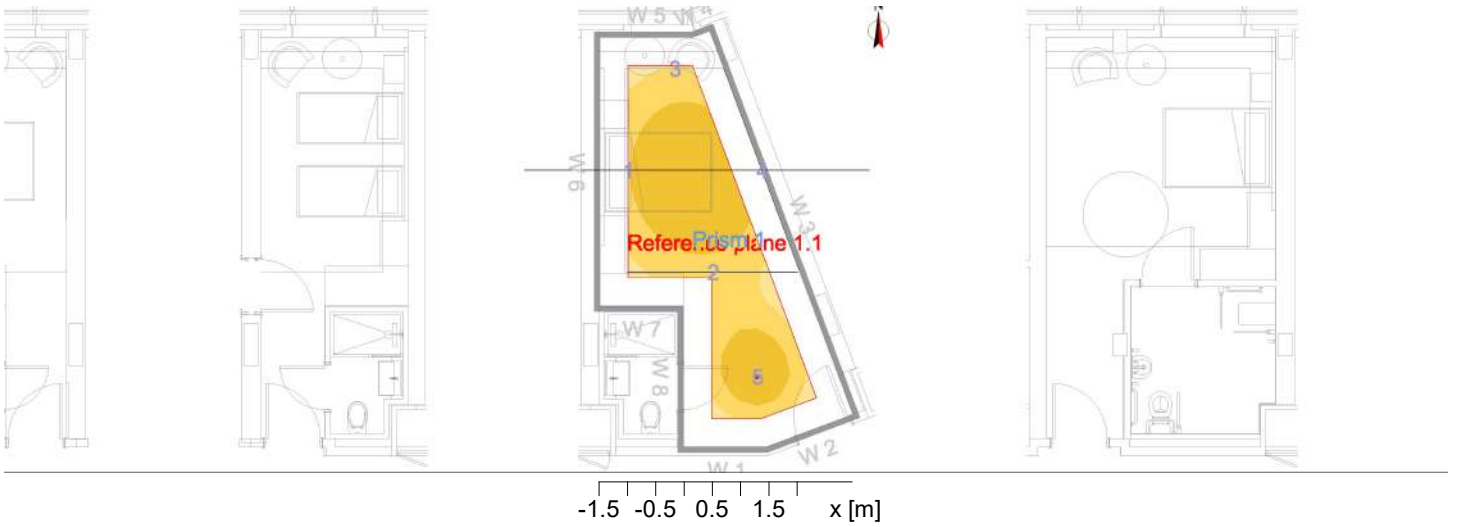
2 2 x
Order No. : !2.1m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 25.2 W / 2520 lm

3 2 x
Order No. : !3.55m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42.6 W / 4260 lm

5 GR Small Deluxe D1

5.1 Summary, GR Small Deluxe D1

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	15393 lm
Effective lamp luminous flux	11055 lm (dimmed to 71.82%)
Luminaire luminous flux	15296 lm
Effective luminaire luminous flux	10959 lm (dimmed to 71.64%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	158.6 W
Total power per area (19.91 m²)	7.97 W/m² (3.93 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	203 lx
E_{min}	133 lx
$E_{min}/\bar{E}_m$ (U_o)	0.66
E_{min}/E_{max} (U_d)	0.51
Position	0.00 m

Type No.\Make

5 GR Small Deluxe D1

5.1 Summary, GR Small Deluxe D1

5.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

3 1 x
Order No. : !3.55m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42.6 W / 4260 lm

4 1 x
Order No. : !3m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 36 W / 3600 lm

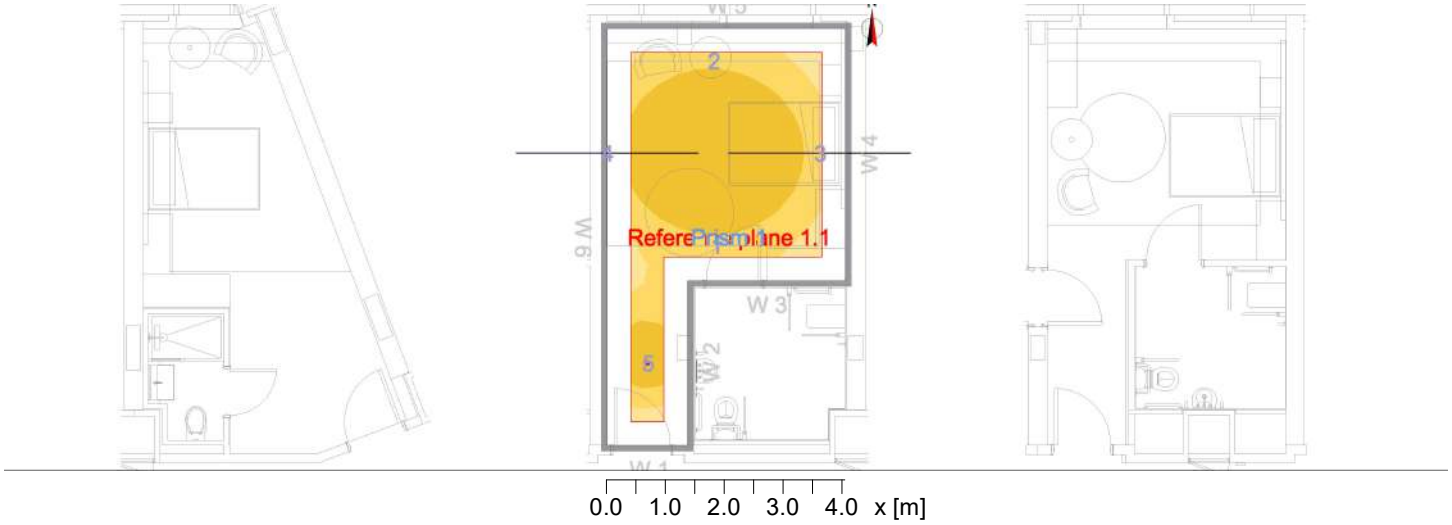
5 1 x
Order No. : !1.7m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 20.4 W / 2040 lm

6 1 x
Order No. : !3.8m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 45.6 W / 4560 lm

6 GR Accessible Deluxe D2

6.1 Summary, GR Accessible Deluxe D2

6.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	17013 lm
Effective lamp luminous flux	12189 lm (dimmed to 71.65%)
Luminaire luminous flux	16916 lm
Effective luminaire luminous flux	12092 lm (dimmed to 71.49%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	174.8 W
Total power per area (21.11 m²)	8.28 W/m² (3.97 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	209 lx
E_{min}	131 lx
$E_{min}/\bar{E}_m$ (U_o)	0.63
E_{min}/E_{max} (U_d)	0.47
Position	0.00 m

Type No.\Make

6 GR Accessible Deluxe D2

6.1 Summary, GR Accessible Deluxe D2

6.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

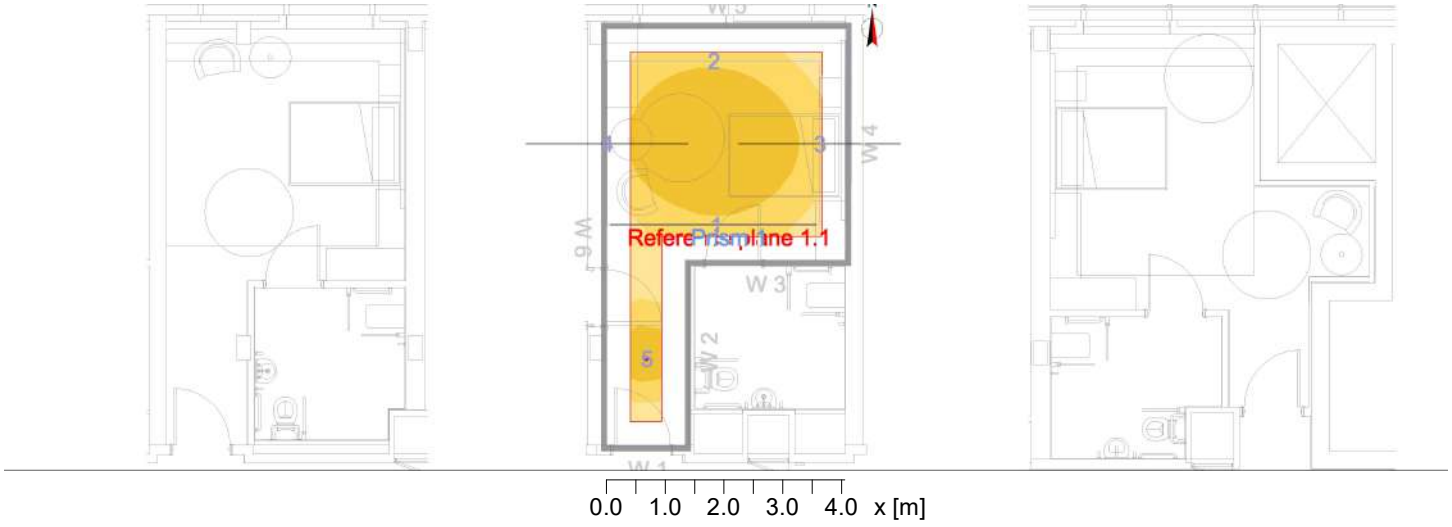
7 2 x
Order No. : !3.6m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 43.2 W / 4320 lm

8 2 x
Order No. : !3.1m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 37.2 W / 3720 lm

7 GR Accessible Deluxe D3

7.1 Summary, GR Accessible Deluxe D3

7.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	15933 lm
Effective lamp luminous flux	11433 lm (dimmed to 71.76%)
Luminaire luminous flux	15836 lm
Effective luminaire luminous flux	11337 lm (dimmed to 71.59%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	164.0 W
Total power per area (20.07 m²)	8.17 W/m² (4.07 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	201 lx
E_{min}	117 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

7 GR Accessible Deluxe D3

7.1 Summary, GR Accessible Deluxe D3

7.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

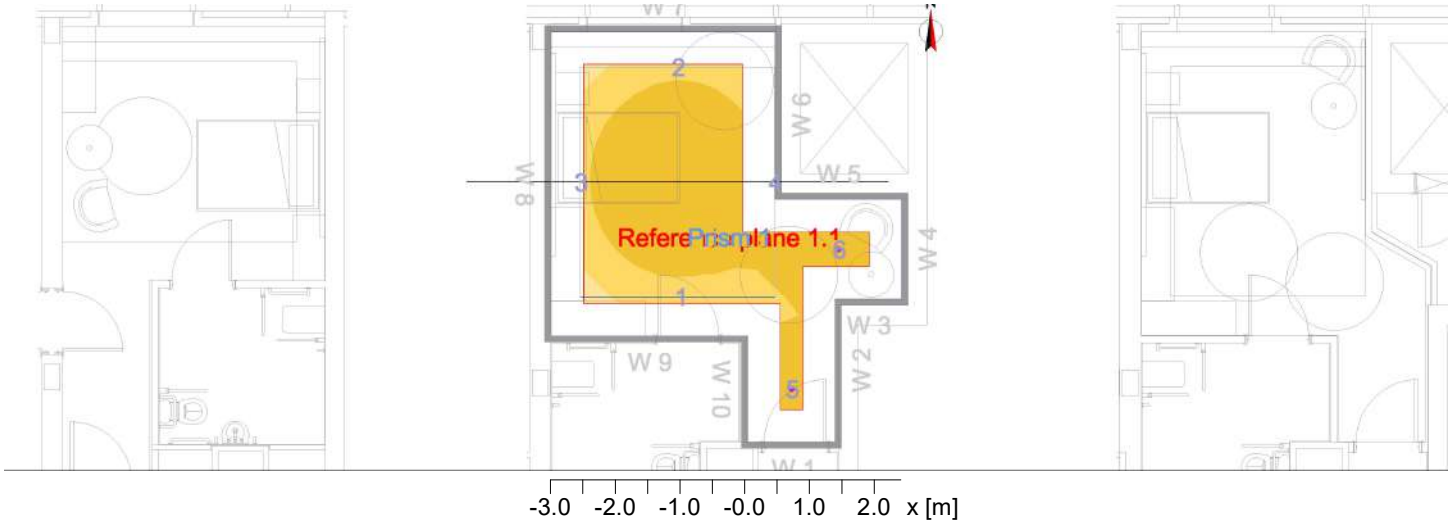
9 2 x
Order No. : !3.5m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42 W / 4200 lm

16 2 x
Order No. : !2.75m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 33 W / 3300 lm

8 GR Accessible Deluxe D4

8.1 Summary, GR Accessible Deluxe D4

8.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	17466 lm
Effective lamp luminous flux	12786 lm (dimmed to 73.21%)
Luminaire luminous flux	17274 lm
Effective luminaire luminous flux	12595 lm (dimmed to 72.91%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	184.0 W
Total power per area (21.93 m²)	8.39 W/m² (3.82 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	220 lx
E_{min}	136 lx
$E_{min}/\bar{E}_m$ (U_o)	0.62
E_{min}/E_{max} (U_d)	0.50
Position	0.00 m

Type No.\Make

8 GR Accessible Deluxe D4

8.1 Summary, GR Accessible Deluxe D4

8.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 2 x

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

Tridonic Jennersdorf

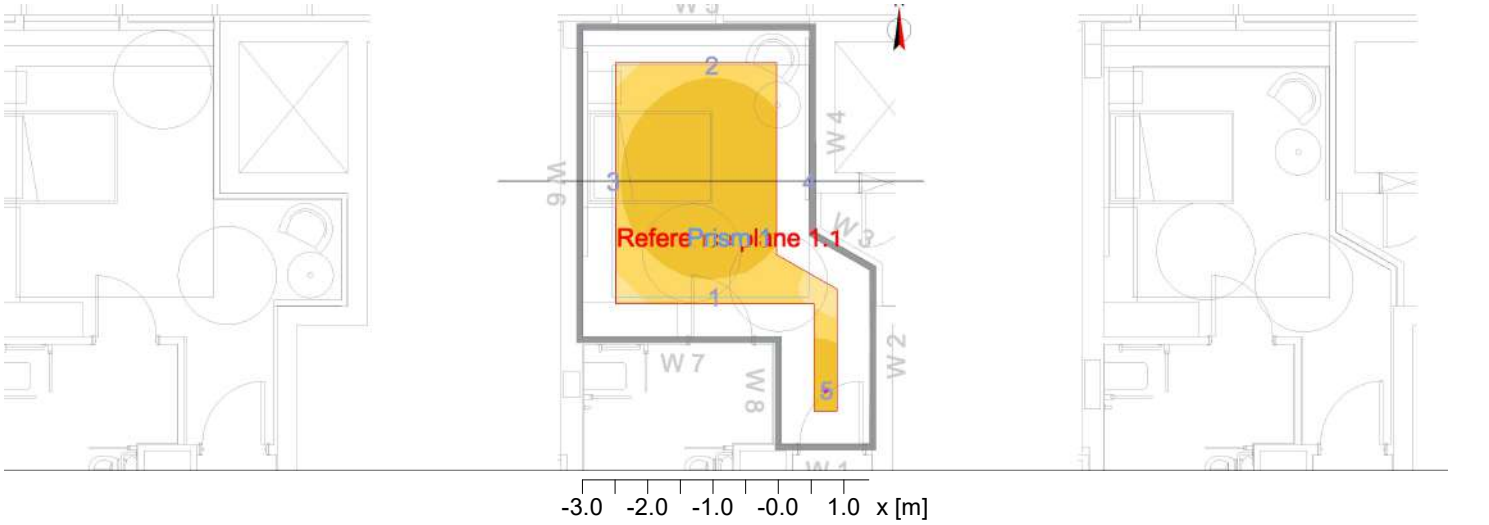
4 2 x
Order No. : !3m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 36 W / 3600 lm

9 2 x
Order No. : !3.5m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42 W / 4200 lm

9 GR Accessible Deluxe D5

9.1 Summary, GR Accessible Deluxe D5

9.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	16533 lm
Effective lamp luminous flux	11853 lm (dimmed to 71.69%)
Luminaire luminous flux	16436 lm
Effective luminaire luminous flux	11757 lm (dimmed to 71.53%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	170.0 W
Total power per area (19.58 m²)	8.68 W/m² (3.99 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	218 lx
E_{min}	121 lx
$E_{min}/\bar{E}_m$ (U_o)	0.55
E_{min}/E_{max} (U_d)	0.44
Position	0.00 m

Type No.\Make

9 GR Accessible Deluxe D5

9.1 Summary, GR Accessible Deluxe D5

9.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

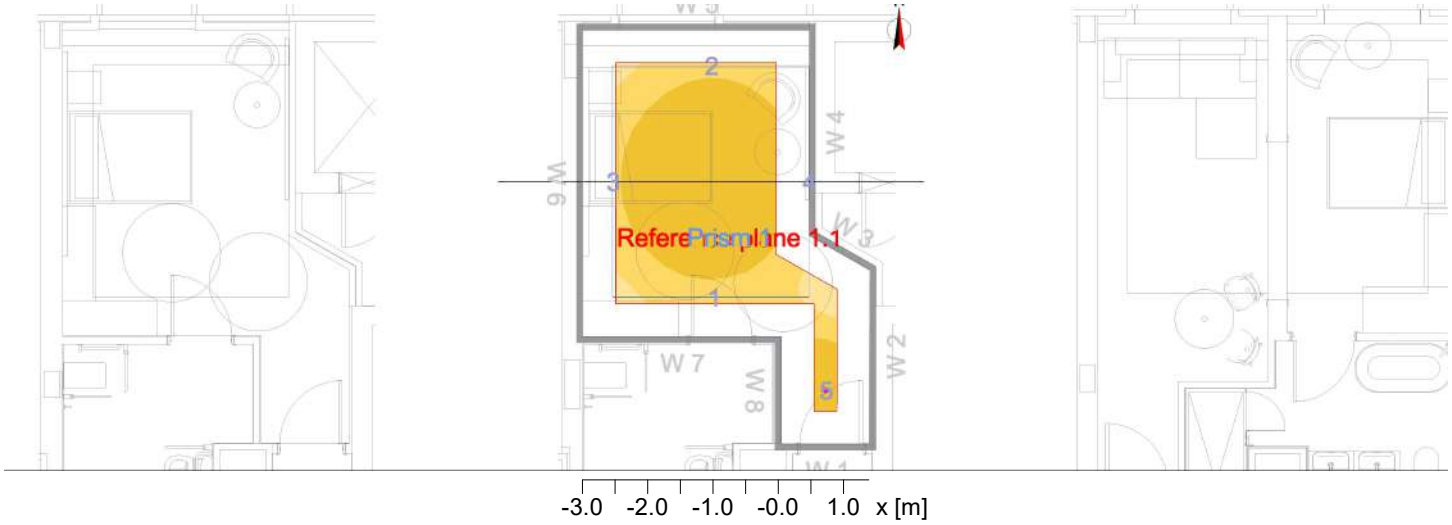
4 2 x
Order No. : !3m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 36 W / 3600 lm

9 2 x
Order No. : !3.5m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42 W / 4200 lm

10 GR Accessible Deluxe D5.1

10.1 Summary, GR Accessible Deluxe D5.1

10.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	16533 lm
Effective lamp luminous flux	11853 lm (dimmed to 71.69%)
Luminaire luminous flux	16436 lm
Effective luminaire luminous flux	11757 lm (dimmed to 71.53%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	170.0 W
Total power per area (19.60 m²)	8.67 W/m² (3.98 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	218 lx
E_{min}	121 lx
$E_{min}/\bar{E}_m$ (U_o)	0.56
E_{min}/E_{max} (U_d)	0.44
Position	0.00 m

Type No.\Make

10 GR Accessible Deluxe D5.1

10.1 Summary, GR Accessible Deluxe D5.1

10.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

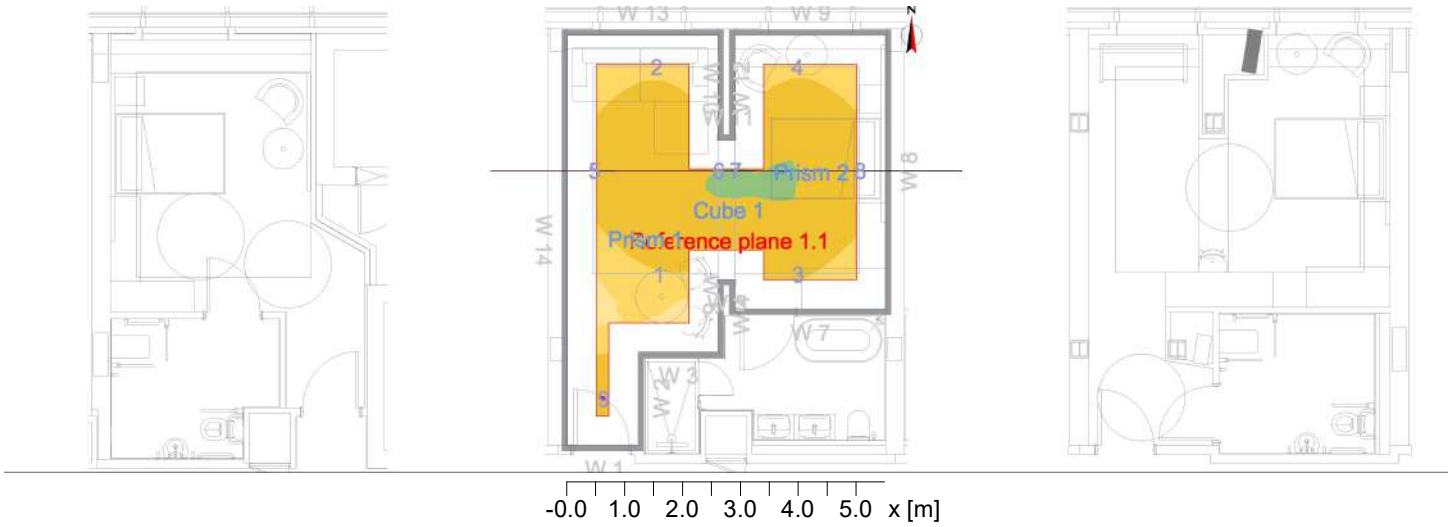
4 2 x
Order No. : !3m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 36 W / 3600 lm

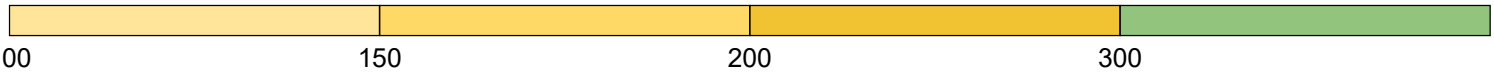
9 2 x
Order No. : !3.5m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42 W / 4200 lm

11 GR Suite S1

11.1 Summary, GR Suite S1

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	28053 lm
Effective lamp luminous flux	19917 lm (dimmed to 71.00%)
Luminaire luminous flux	27954 lm
Effective luminaire luminous flux	19819 lm (dimmed to 70.90%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	285.2 W
Total power per area (29.10 m²)	9.80 W/m² (4.13 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	237 lx
E_{min}	125 lx
$E_{min}/\bar{E}_m$ (U_o)	0.52
E_{min}/E_{max} (U_d)	0.41
Position	0.00 m (rot: 0°/0°)

Type No.\Make

11 GR Suite S1

11.1 Summary, GR Suite S1

11.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1 1 x

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

Tridonic Jennersdorf

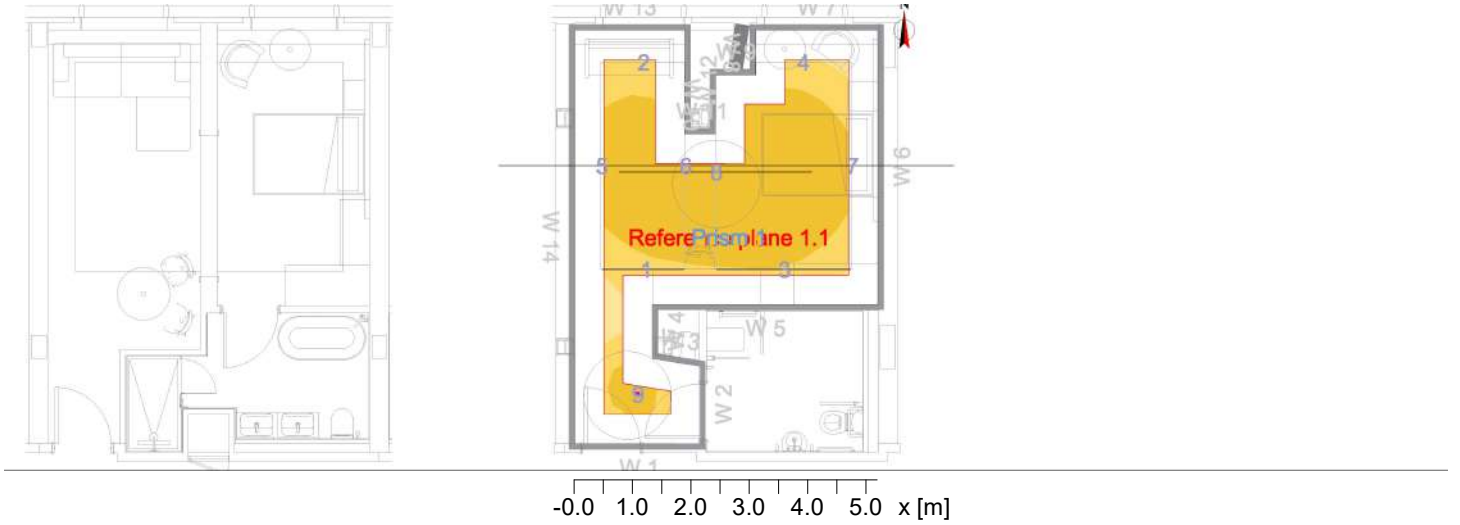
2 4 x
Order No. : !2.1m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 25.2 W / 2520 lm

3 4 x
Order No. : !3.55m
Luminaire name : LLE FLEX EXC Gen4
Equipment : 1 x Type of lamp 42.6 W / 4260 lm

12 GR Accessible Suite S2

12.1 Summary, GR Accessible Suite S2

12.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	25533 lm
Effective lamp luminous flux	18153 lm (dimmed to 71.10%)
Luminaire luminous flux	25434 lm
Effective luminaire luminous flux	18055 lm (dimmed to 70.99%)

(Luminaires have been dimmed. For details see output page "Luminaire data/Room elements".)

Total power	260.0 W
Total power per area (27.14 m²)	9.58 W/m² (4.22 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	227 lx
E_{min}	138 lx
$E_{min}/\bar{E}_m$ (U_o)	0.61
E_{min}/E_{max} (U_d)	0.49
Position	0.00 m (rot: 0°/0°)

Type No.\Make

12 GR Accessible Suite S2

12.1 Summary, GR Accessible Suite S2

12.1.1 Result overview, Evaluation area 1

Chiara Lighting Limited

1	1 x	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

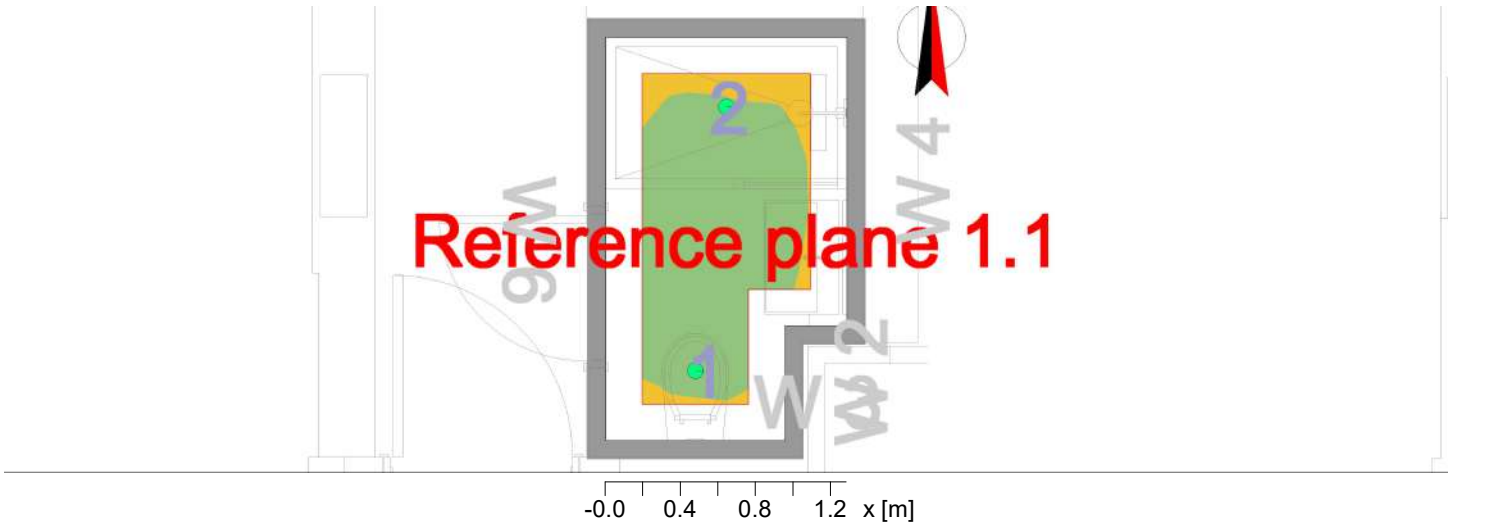
Tridonic Jennersdorf

9	3 x	Order No.	: !3.5m
		Luminaire name	: LLE FLEX EXC Gen4
		Equipment	: 1 x Type of lamp 42 W / 4200 lm
10	2 x	Order No.	: !1.4m
		Luminaire name	: LLE FLEX EXC Gen4
		Equipment	: 1 x Type of lamp 16.8 W / 1680 lm
11	1 x	Order No.	: !2.3m
		Luminaire name	: LLE FLEX EXC Gen4
		Equipment	: 1 x Type of lamp 27.6 W / 2760 lm
14	1 x	Order No.	: !3.3m
		Luminaire name	: LLE FLEX EXC Gen4
		Equipment	: 1 x Type of lamp 39.6 W / 3960 lm
17	1 x	Order No.	: !1.6m
		Luminaire name	: LLE FLEX EXC Gen4
		Equipment	: 1 x Type of lamp 19.2 W / 1920 lm

13 Standard Ensuite

13.1 Summary, Standard Ensuite

13.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (2.55 m²)	10.99 W/m² (3.32 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	331 lx
E_{min}	297 lx
$E_{min}/\bar{E}_m$ (U_o)	0.90
E_{min}/E_{max} (U_d)	0.81
Position	0.00 m

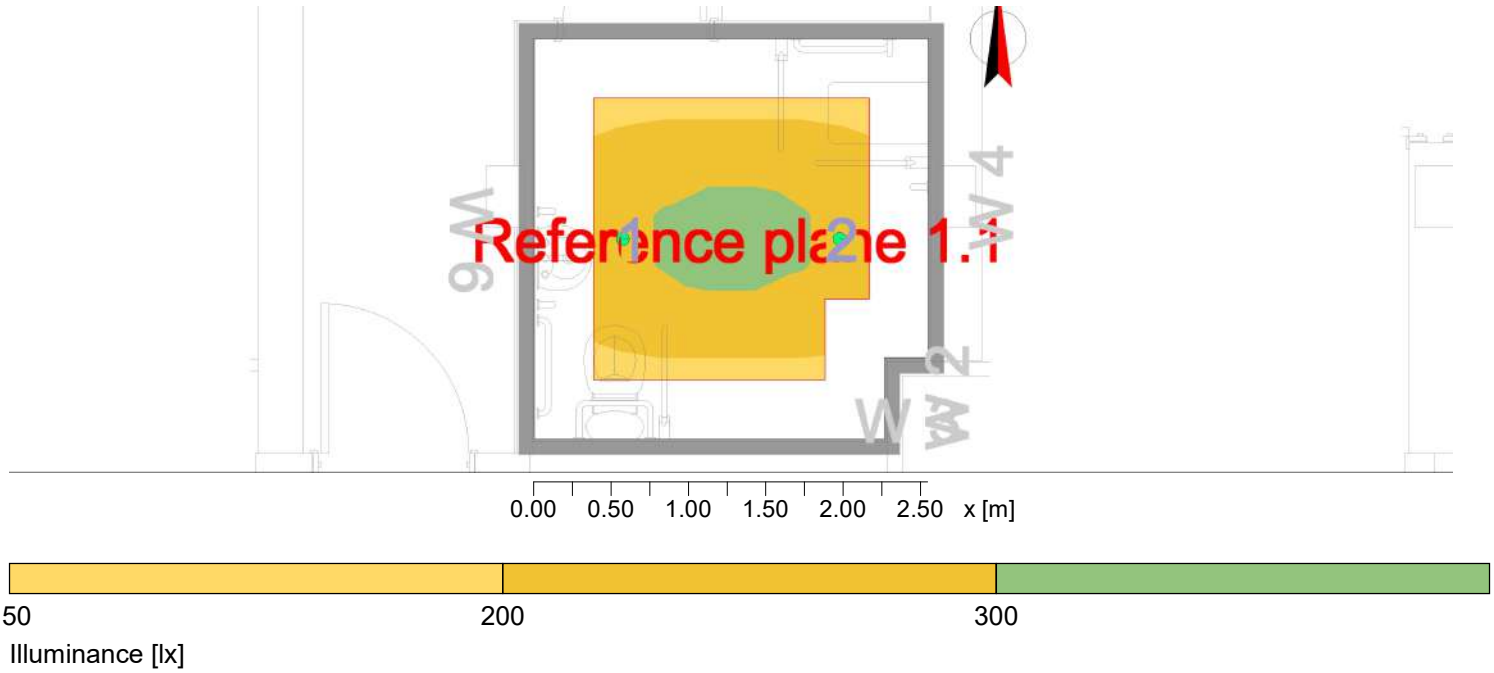
Type No.\Make

15 2 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

14 Accessible Ensuite (i)

14.1 Summary, Accessible Ensuite (i)

14.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.42 m²)	4.36 W/m² (1.68 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	259 lx
E_{min}	192 lx
$E_{min}/\bar{E}_m$ (U_o)	0.74
E_{min}/E_{max} (U_d)	0.58
Position	0.00 m

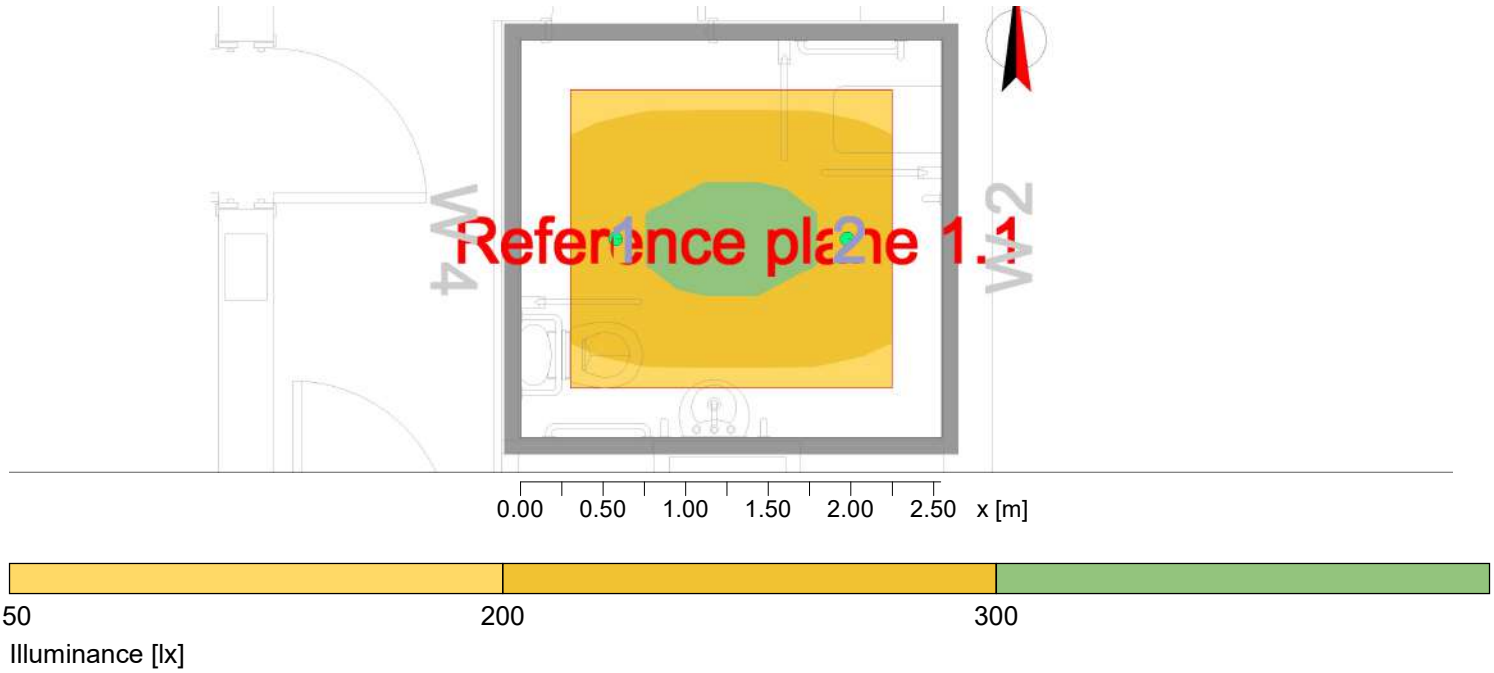
Type No.\Make

		Chiara Lighting Limited
15	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

15 Accessible Ensuite (ii)

15.1 Summary, Accessible Ensuite (ii)

15.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.11 m²)	4.59 W/m² (1.78 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	257 lx
E_{min}	191 lx
$E_{min}/\bar{E}_m$ (U_o)	0.74
E_{min}/E_{max} (U_d)	0.58
Position	0.00 m

Type No.\Make

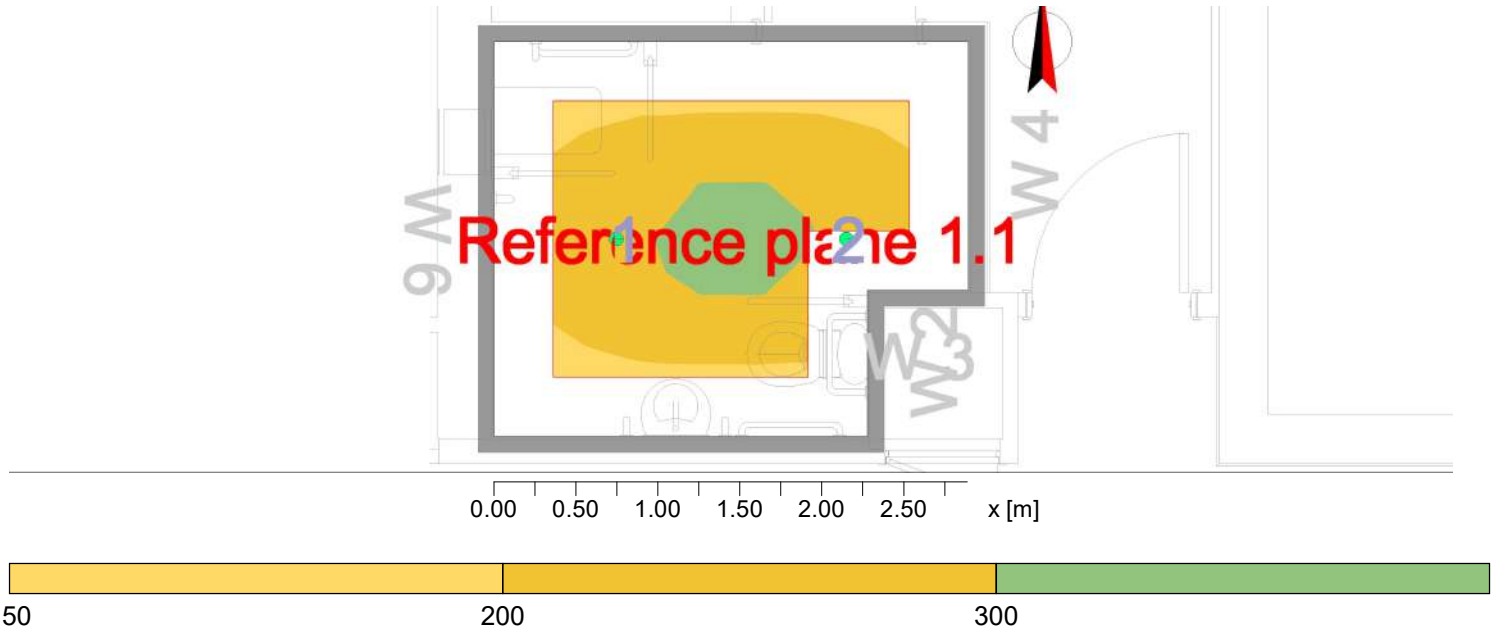
15 2 x

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

16 Accessible Ensuite (iii)

16.1 Summary, Accessible Ensuite (iii)

16.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.39 m²)	4.39 W/m² (1.71 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	257 lx
E_{min}	195 lx
$E_{min}/\bar{E}_m$ (U_o)	0.76
E_{min}/E_{max} (U_d)	0.59
Position	0.00 m

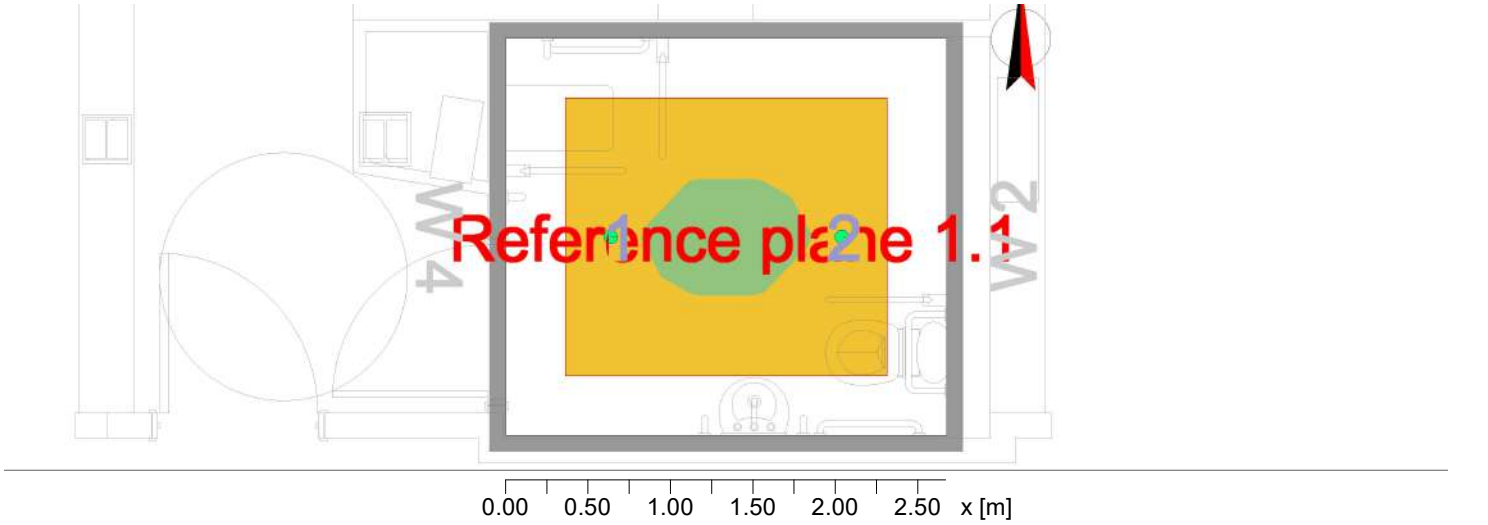
Type No.\Make

		Chiara Lighting Limited
15	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

17 Accessible Ensuite (iv)

17.1 Summary, Accessible Ensuite (iv)

17.1.1 Result overview, Evaluation area 1





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	2099 lm
Total power	28.0 W
Total power per area (6.41 m²)	4.37 W/m² (1.67 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	261 lx
E_{min}	206 lx
$E_{min}/\bar{E}_m$ (U_o)	0.79
E_{min}/E_{max} (U_d)	0.61
Position	0.00 m

Type No.\Make

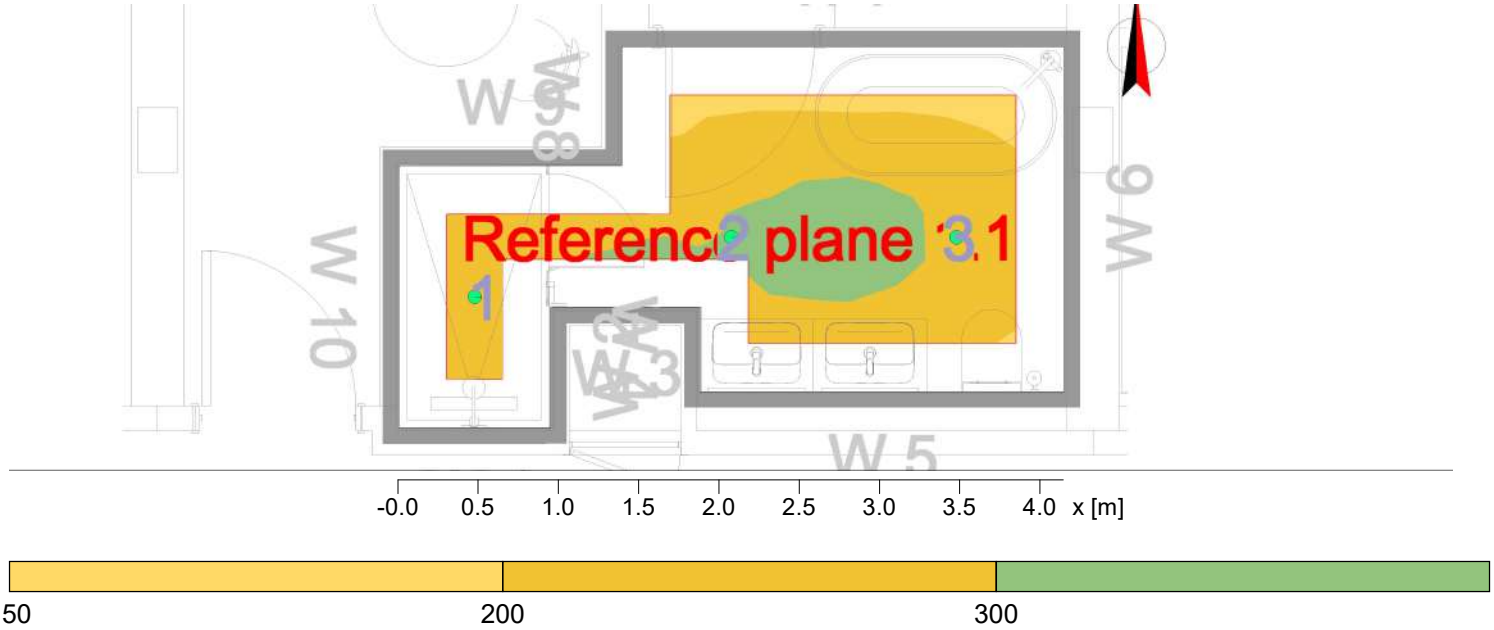
15 2 x

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

18 Large Suite Ensuite

18.1 Summary, Large Suite Ensuite

18.1.1 Result overview, Evaluation area 1



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.28 m
Maintenance factor	0.80
Luminaire luminous flux	3148 lm
Total power	42.0 W
Total power per area (7.57 m²)	5.55 W/m² (2.04 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	272 lx
E_{min}	183 lx
$E_{min}/\bar{E}_m$ (U_o)	0.67
E_{min}/E_{max} (U_d)	0.54
Position	0.00 m

Type No.\Make

15 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

Hotel - Stairs

Installation : MCFC Redevelopment

Project number	:	SY1023-27
Customer	:	SES
Processed by	:	S Hollingworth
Date	:	11.03.2025

Project description:

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

Maintenance Factor: 0.8

Rev A - Initial issue.
Rev B - Updated to take account of latest GAs / RCPs from Architect / Space Invaders. Also Emergency Lighting Review doc received from RF 07.02.2025.

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.

Table of contents

First Page 1
Table of contents 2
1 Stair Core 1
1.1 Summary, Stair Core 1
1.1.1 Result overview, Level 00 6
1.1.2 Result overview, Tread (i) 7
1.1.3 Result overview, Landing (i) 8
1.1.4 Result overview, Tread (ii) 9
1.1.5 Result overview, Level 00M 10
1.1.6 Result overview, Tread (iii) 11
1.1.7 Result overview, Landing (ii) 12
1.1.8 Result overview, Tread (iv) 13
1.1.9 Result overview, Level 01 14
1.1.10 Result overview, Tread (v) 15
1.1.11 Result overview, Landing (iii) 16
1.1.12 Result overview, Tread (vi) 17
1.1.13 Result overview, Level 01M 18
1.1.14 Result overview, Tread (vii) 19
1.1.15 Result overview, Landing (iv) 20
1.1.16 Result overview, Tread (viii) 21
1.1.17 Result overview, Level 02 22
1.1.18 Result overview, Tread (ix) 23
1.1.19 Result overview, Landing (v) 24
1.1.20 Result overview, Tread (x) 25
1.1.21 Result overview, Level 03 26
1.1.22 Result overview, Tread (xi) 27
1.1.23 Result overview, Landing (vi) 28
1.1.24 Result overview, Tread (xii) 29
1.1.25 Result overview, Level 04 30
1.1.26 Result overview, Tread (xiii) 31
1.1.27 Result overview, Landing (vii) 32
1.1.28 Result overview, Tread (xiv) 33
1.1.29 Result overview, Level 05 34
1.1.30 Result overview, Tread (xv) 35
1.1.31 Result overview, Landing (viii) 36
1.1.32 Result overview, Tread (xvi) 37
1.1.33 Result overview, Level 06 38
1.1.34 Result overview, Tread (xvii) 39
1.1.35 Result overview, Landing (ix) 40
1.1.36 Result overview, Tread (xviii) 41
1.1.37 Result overview, Level 07 42
1.1.38 Result overview, Tread (xix) 43
1.1.39 Result overview, Landing (x) 44
1.1.40 Result overview, Landing (xi) 45
1.1.41 Result overview, Tread (xx) 46
1.1.42 Result overview, Level 08 47
1.1.43 Result overview, Ref Planes (1) 48
1.2 Summary, Stair Core 1
1.2.1.1 Result overview (emergency lighting) 50
2 Stair Core 2

Table of contents

2.1 Summary, Stair Core 2
2.1.1 Result overview, Level 00 58
2.1.2 Result overview, Tread (i) 59
2.1.3 Result overview, Landing (i) 60
2.1.4 Result overview, Tread (ii) 61
2.1.5 Result overview, Level 00M 62
2.1.6 Result overview, Tread (iii) 63
2.1.7 Result overview, Landing (ii) 64
2.1.8 Result overview, Tread (iv) 65
2.1.9 Result overview, Level 01 66
2.1.10 Result overview, Tread (v) 67
2.1.11 Result overview, Landing (iii) 68
2.1.12 Result overview, Tread (vi) 69
2.1.13 Result overview, Level 01M 70
2.1.14 Result overview, Tread (vii) 71
2.1.15 Result overview, Landing (iv) 72
2.1.16 Result overview, Tread (viii) 73
2.1.17 Result overview, Level 02 74
2.1.18 Result overview, Tread (ix) 75
2.1.19 Result overview, Landing (v) 76
2.1.20 Result overview, Tread (x) 77
2.1.21 Result overview, Level 03 78
2.1.22 Result overview, Tread (xi) 79
2.1.23 Result overview, Landing (vi) 80
2.1.24 Result overview, Tread (xii) 81
2.1.25 Result overview, Level 04 82
2.1.26 Result overview, Tread (xiii) 83
2.1.27 Result overview, Landing (vii) 84
2.1.28 Result overview, Tread (xiv) 85
2.1.29 Result overview, Level 05 86
2.1.30 Result overview, Tread (xv) 87
2.1.31 Result overview, Landing (viii) 88
2.1.32 Result overview, Tread (xvi) 89
2.1.33 Result overview, Level 06 90
2.1.34 Result overview, Tread (xvii) 91
2.1.35 Result overview, Landing (ix) 92
2.1.36 Result overview, Tread (xviii) 93
2.1.37 Result overview, Level 07 94
2.1.38 Result overview, Tread (xix) 95
2.1.39 Result overview, Landing (x) 96
2.1.40 Result overview, Tread (x) 97
2.1.41 Result overview, Level 08 98
2.1.42 Result overview, Tread (ix) 99
2.1.43 Result overview, Landing (xi) 100
2.1.44 Result overview, Tread (x) 101
2.1.45 Result overview, Level 09 102
2.1.46 Result overview, Ref Planes (1) 103
2.2 Summary, Stair Core 2
2.2.1.1 Result overview (emergency lighting) 105
3 Stair Core 3

Table of contents

3.1 Summary, Stair Core 3
3.1.1 Result overview, Level 00 111
3.1.2 Result overview, Tread (i) 113
3.1.3 Result overview, Landing (i) 115
3.1.4 Result overview, Tread (ii) 117
3.1.5 Result overview, Level 00M 119
3.1.6 Result overview, Tread (iii) 121
3.1.7 Result overview, Landing (ii) 123
3.1.8 Result overview, Tread (iv) 125
3.1.9 Result overview, Level 01 127
3.1.10 Result overview, Tread (v) 129
3.1.11 Result overview, Landing (iii) 131
3.1.12 Result overview, Tread (vi) 133
3.1.13 Result overview, Level 01M 135
3.1.14 Result overview, Tread (vii) 137
3.1.15 Result overview, Landing (iv) 139
3.1.16 Result overview, Tread (viii) 141
3.1.17 Result overview, Level 02 143
3.1.18 Result overview, Tread (ix) 145
3.1.19 Result overview, Landing (v) 147
3.1.20 Result overview, Tread (x) 149
3.1.21 Result overview, Level 03 151
3.1.22 Result overview, Tread (xi) 153
3.1.23 Result overview, Landing (vi) 155
3.1.24 Result overview, Tread (xii) 157
3.1.25 Result overview, Level 04 159
3.1.26 Result overview, Level 01 Lift Lobby 161
3.1.27 Result overview, Level 02 Lift Lobby 163
3.1.28 Result overview, Level 03 Lift Lobby 165
3.1.29 Result overview, Level 04 Lift Lobby 167
3.1.30 Result overview, Stair Ref Planes (1) 169
3.2 Summary, Stair Core 3
3.2.1.1 Result overview (emergency lighting) 170
4 Stair Core 4
4.1 Summary, Stair Core 4
4.1.1 Result overview, Level 00 175
4.1.2 Result overview, Tread (i) 176
4.1.3 Result overview, Quarter Landing (i) 177
4.1.4 Result overview, Quarter Landing (ii) 178
4.1.5 Result overview, Tread (ii) 179
4.1.6 Result overview, Level 00M 180
4.1.7 Result overview, Tread (iii) 181
4.1.8 Result overview, Quarter Landing (iii) 182
4.1.9 Result overview, Quarter Landing (iv) 183
4.1.10 Result overview, Tread (iv) 184
4.1.11 Result overview, Level 01 185
4.1.12 Result overview, Tread (v) 186
4.1.13 Result overview, Quarter Landing (v) 187
4.1.14 Result overview, Quarter Landing (vi) 188
4.1.15 Result overview, Tread (vi) 189

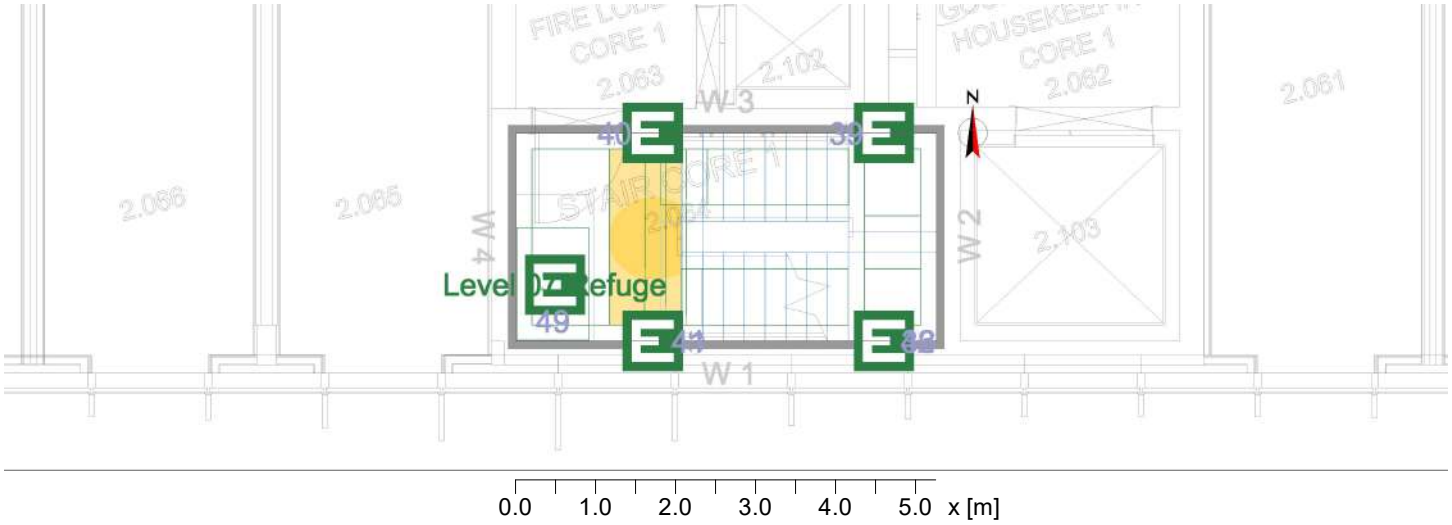
Table of contents

4.1.16 Result overview, Level 01M 190
4.1.17 Result overview, Tread (vii) 191
4.1.18 Result overview, Quarter Landing (vii) 192
4.1.19 Result overview, Quarter Landing (viii) 193
4.1.20 Result overview, Tread (viii) 194
4.1.21 Result overview, Level 02 195
4.1.22 Result overview, Tread (ix) 196
4.1.23 Result overview, Quarter Landing (ix) 197
4.1.24 Result overview, Quarter Landing (x) 198
4.1.25 Result overview, Tread (x) 199
4.1.26 Result overview, Level 03 200
4.1.27 Result overview, Tread (xi) 201
4.1.28 Result overview, Quarter Landing (xi) 202
4.1.29 Result overview, Quarter Landing (xii) 203
4.1.30 Result overview, Tread (xii) 204
4.1.31 Result overview, Level 04 205
4.1.32 Result overview, Tread (xiii) 206
4.1.33 Result overview, Quarter Landing (xiii) 207
4.1.34 Result overview, Quarter Landing (xiv) 208
4.1.35 Result overview, Tread (xiv) 209
4.1.36 Result overview, Level 05 210
4.1.37 Result overview, Tread (xv) 211
4.1.38 Result overview, Quarter Landing (xv) 212
4.1.39 Result overview, Quarter Landing (xvi) 213
4.1.40 Result overview, Tread (xvi) 214
4.1.41 Result overview, Level 06 215
4.1.42 Result overview, Tread (xvii) 216
4.1.43 Result overview, Quarter Landing (xvii) 217
4.1.44 Result overview, Quarter Landing (xviii) 218
4.1.45 Result overview, Tread (xviii) 219
4.1.46 Result overview, Level 07 220
4.1.47 Result overview, Tread (xix) 221
4.1.48 Result overview, Quarter Landing (xix) 222
4.1.49 Result overview, Quarter Landing (x) 223
4.1.50 Result overview, Tread (x) 224
4.1.51 Result overview, Level 08 225
4.1.52 Result overview, Ref Planes (1) 226
4.2 Summary, Stair Core 4
4.2.1.1 Result overview (emergency lighting) 228

1 Stair Core 1

1.1 Summary, Stair Core 1

1.1.1 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	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

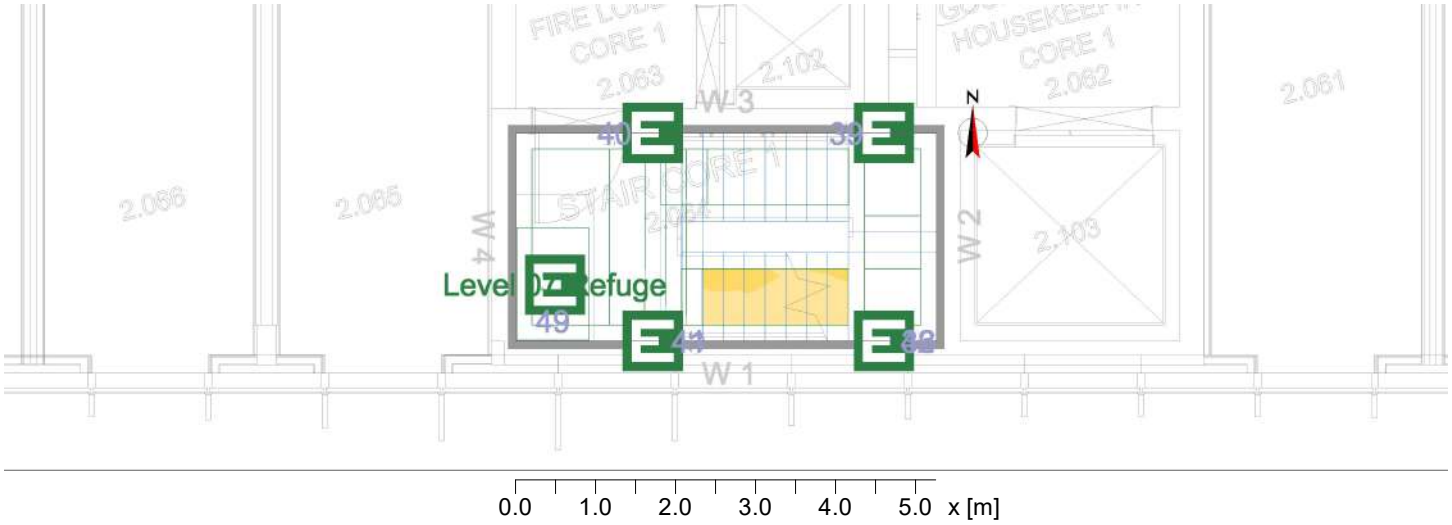
Average illuminance	$\bar{E}_m$	140 lx
Minimum illuminance	E_{min}	104 lx
Maximum illuminance	E_{max}	165 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.58 (0.63)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.2 Result overview, Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

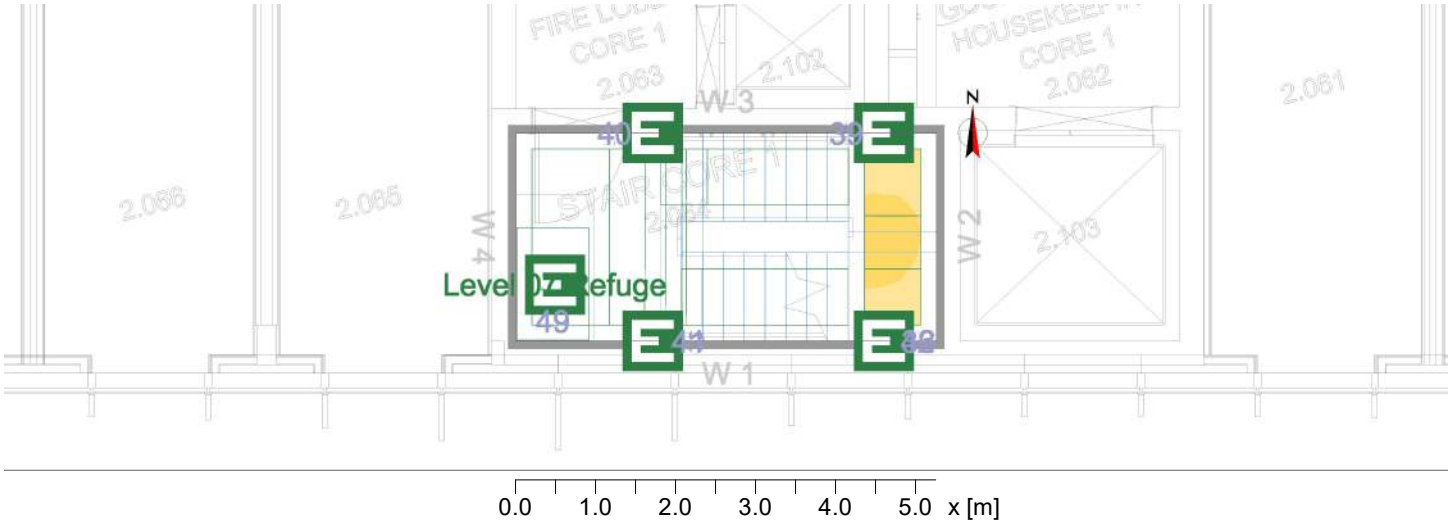
Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	112 lx
Maximum illuminance	E_{max}	164 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.23 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.47 (0.68)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.3 Result overview, Landing (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.31 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	144 lx
Minimum illuminance	E_{min}	103 lx
Maximum illuminance	E_{max}	171 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.4 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.66 (0.6)

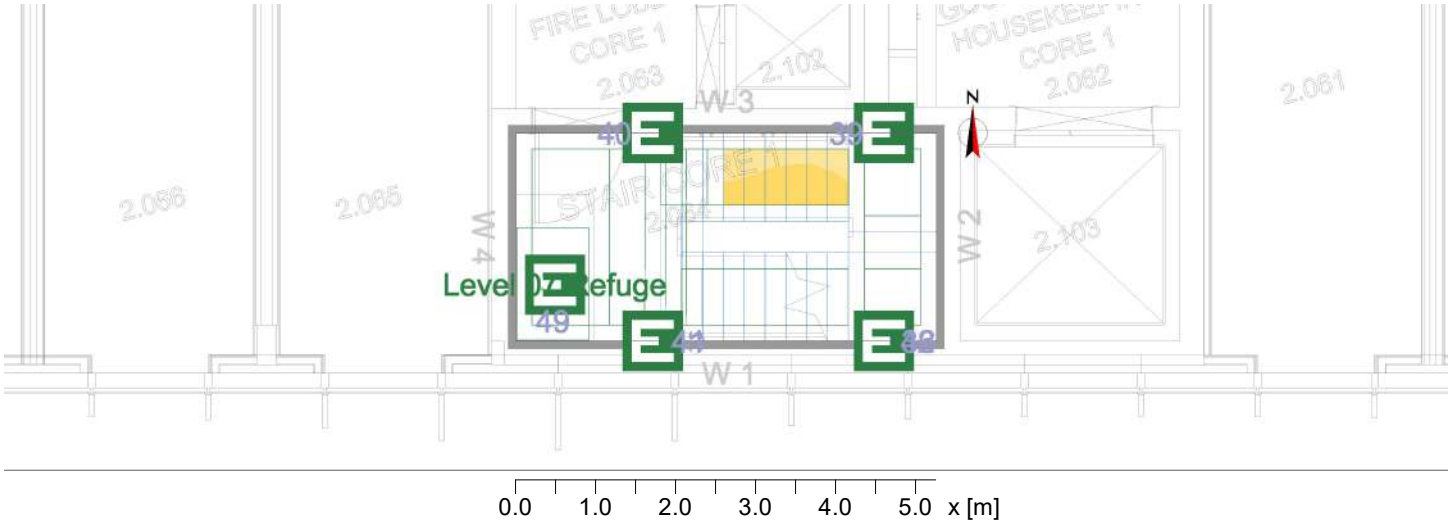
Type No.\Make

Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.4 Result overview, Tread (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

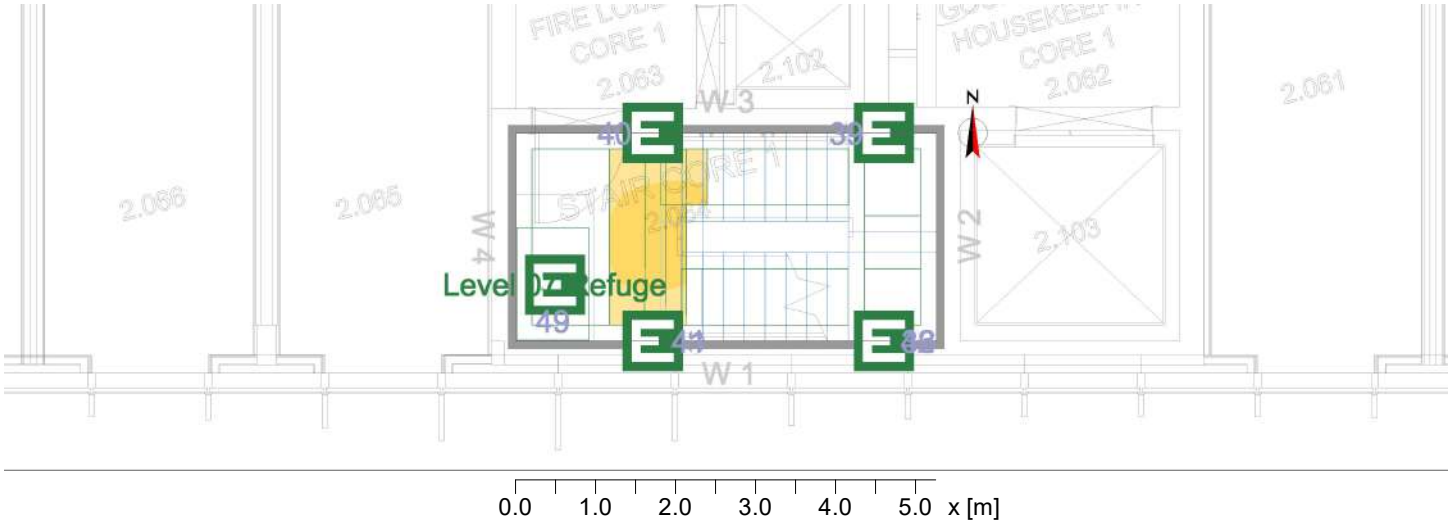
Average illuminance	$\bar{E}_m$	155 lx
Minimum illuminance	E_{min}	122 lx
Maximum illuminance	E_{max}	184 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.51 (0.66)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.5 Result overview, Level 00M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	2.47 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

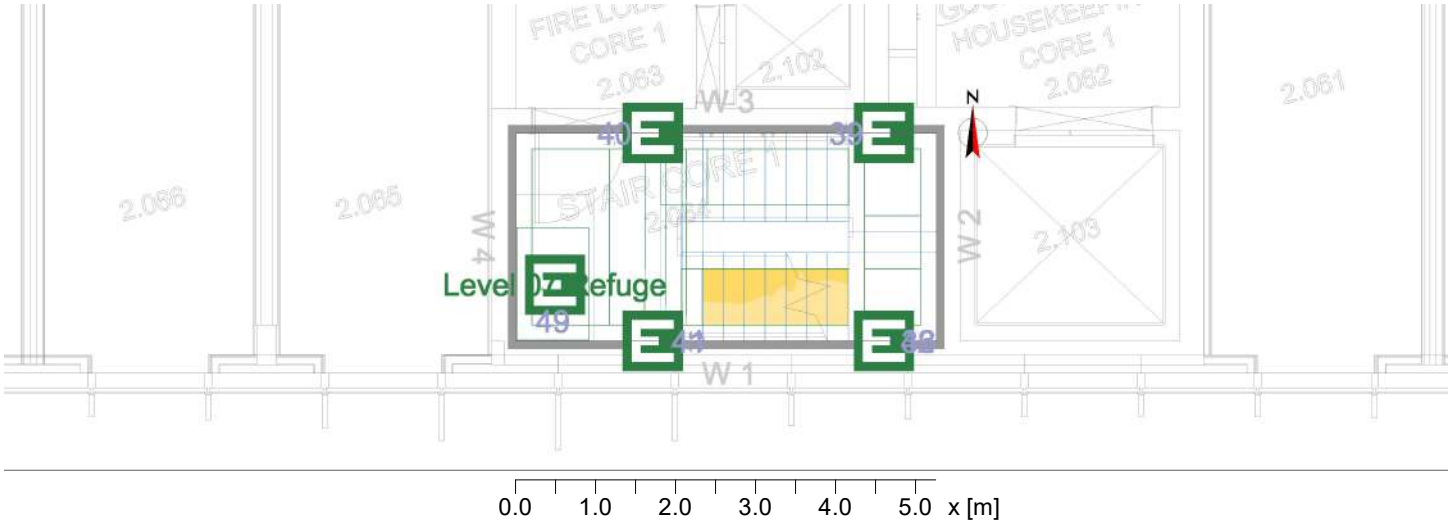
Average illuminance	$\bar{E}_m$	152 lx
Minimum illuminance	E_{min}	117 lx
Maximum illuminance	E_{max}	179 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.65)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.6 Result overview, Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

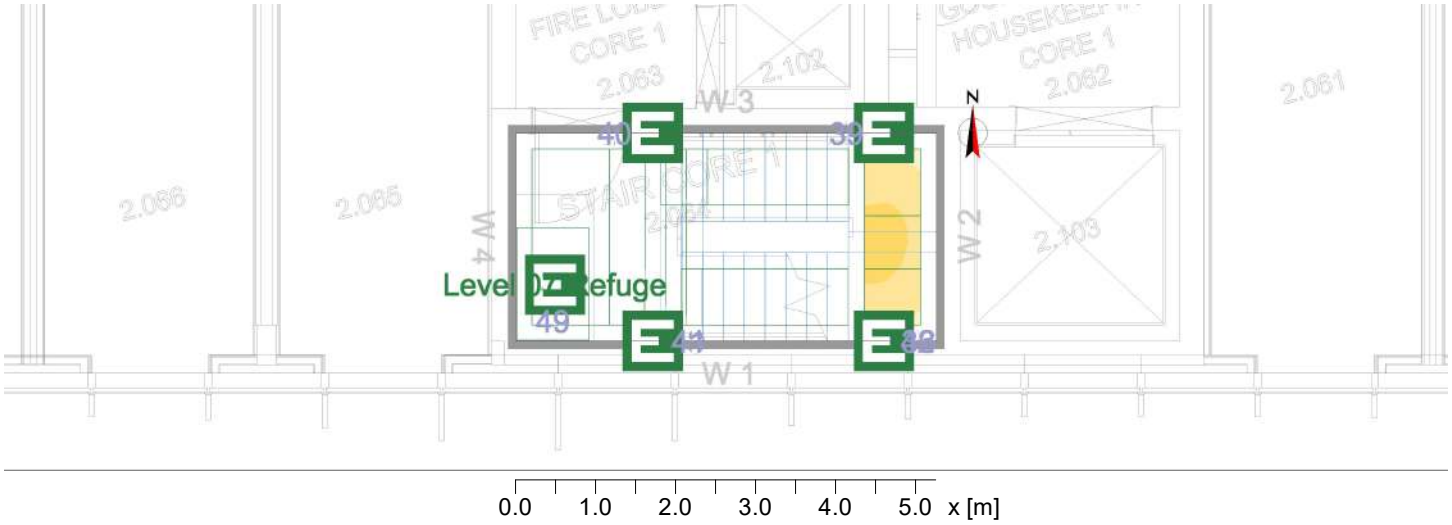
Average illuminance	$\bar{E}_m$	146 lx
Minimum illuminance	E_{min}	118 lx
Maximum illuminance	E_{max}	177 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.5 (0.67)

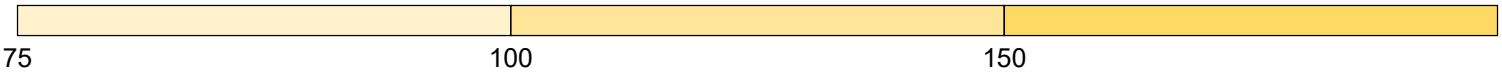
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.7 Result overview, Landing (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.79 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

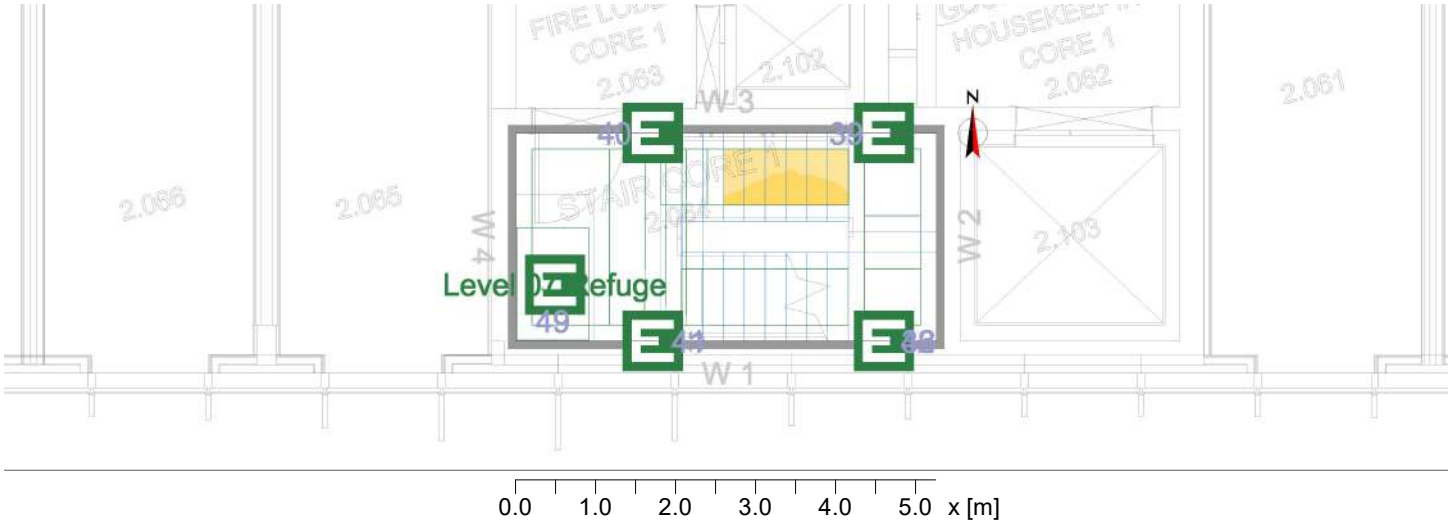
Average illuminance	$\bar{E}_m$	135 lx
Minimum illuminance	E_{min}	87 lx
Maximum illuminance	E_{max}	167 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.55 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.92 (0.52)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.8 Result overview, Tread (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

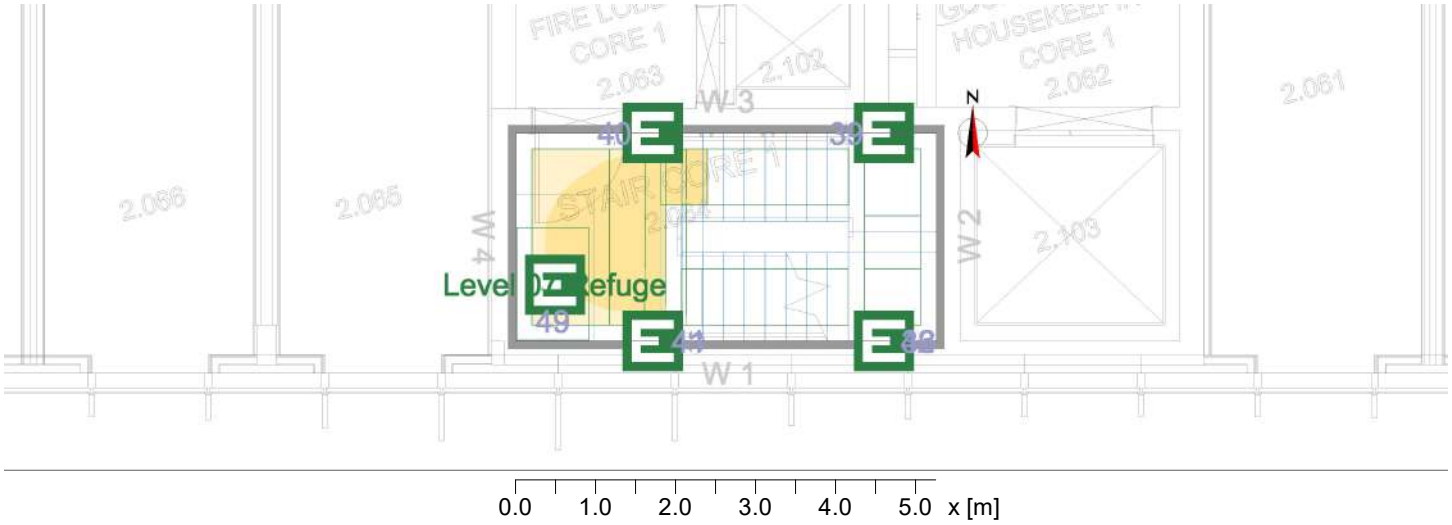
Average illuminance	$\bar{E}_m$	145 lx
Minimum illuminance	E_{min}	112 lx
Maximum illuminance	E_{max}	173 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.3 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.64)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.9 Result overview, Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	4.94 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	77 lx
Maximum illuminance	E_{max}	150 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.5 (0.66)
Diversity U_d	E_{min}/E_{max}	1:1.95 (0.51)

Type No.\Make

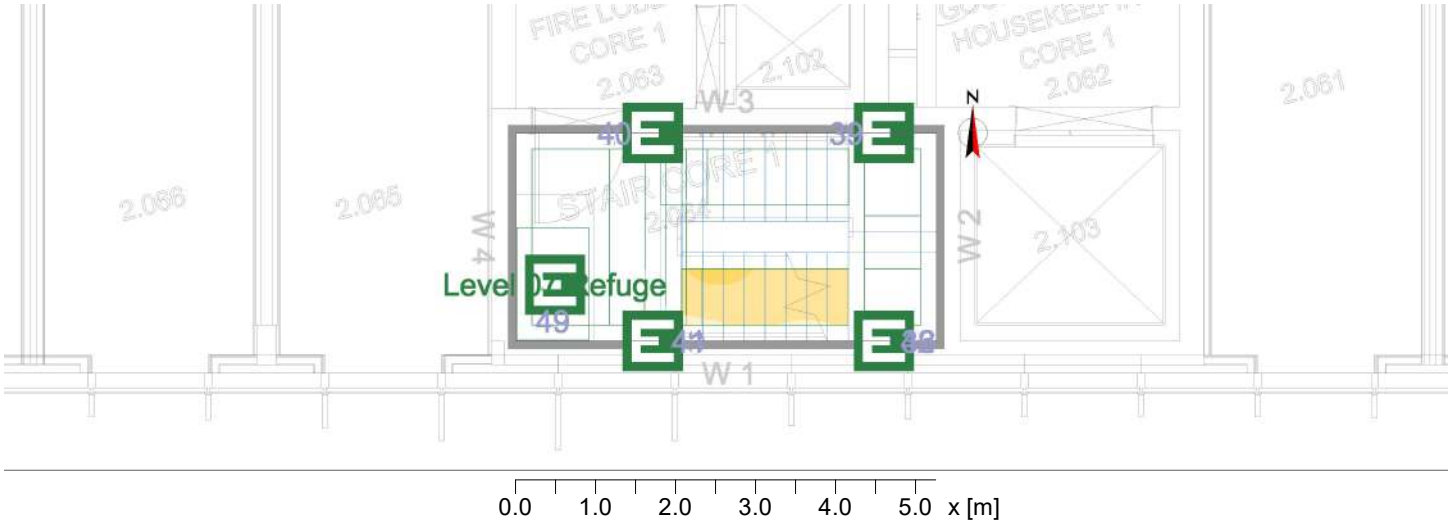
Thorn

2 42E x

Order No.	: -- Emergency Lighting --
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.10 Result overview, Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	128 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

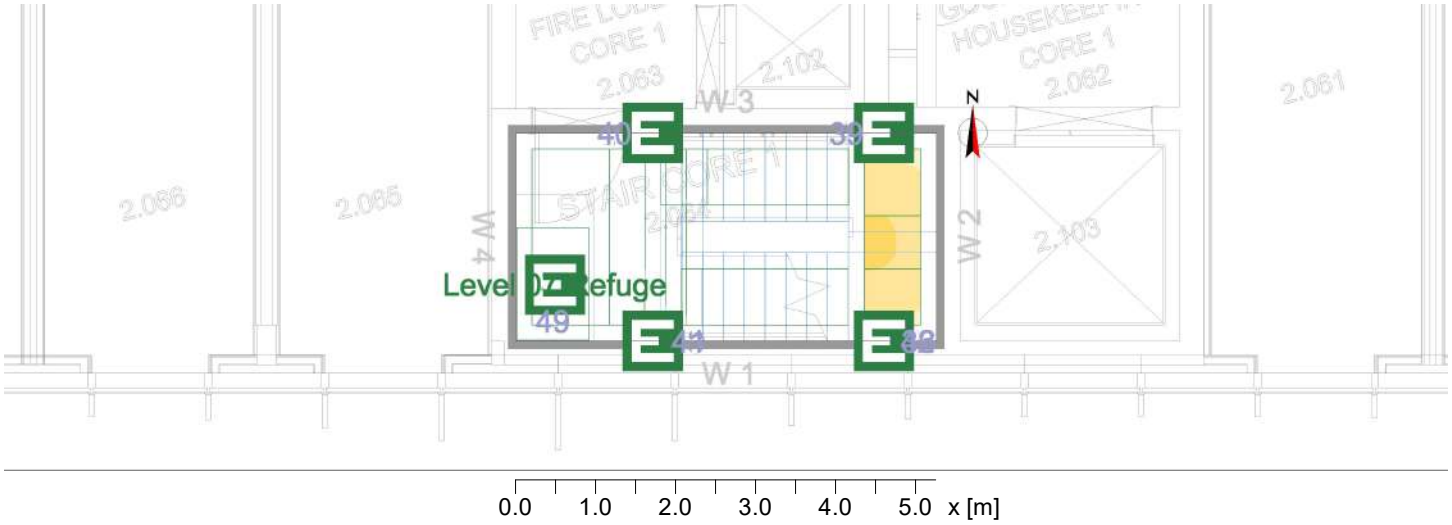
Type No.\Make

Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.11 Result overview, Landing (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.42 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

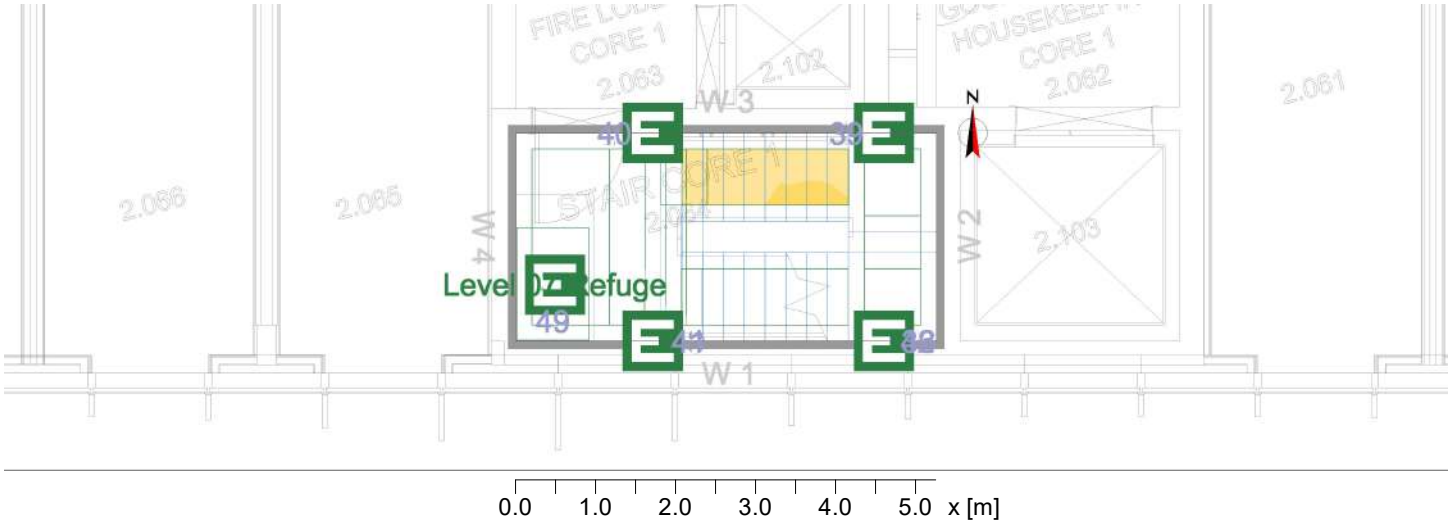
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	88 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.48 (0.68)
Diversity U_d	E_{min}/E_{max}	1:1.79 (0.56)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.12 Result overview, Tread (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

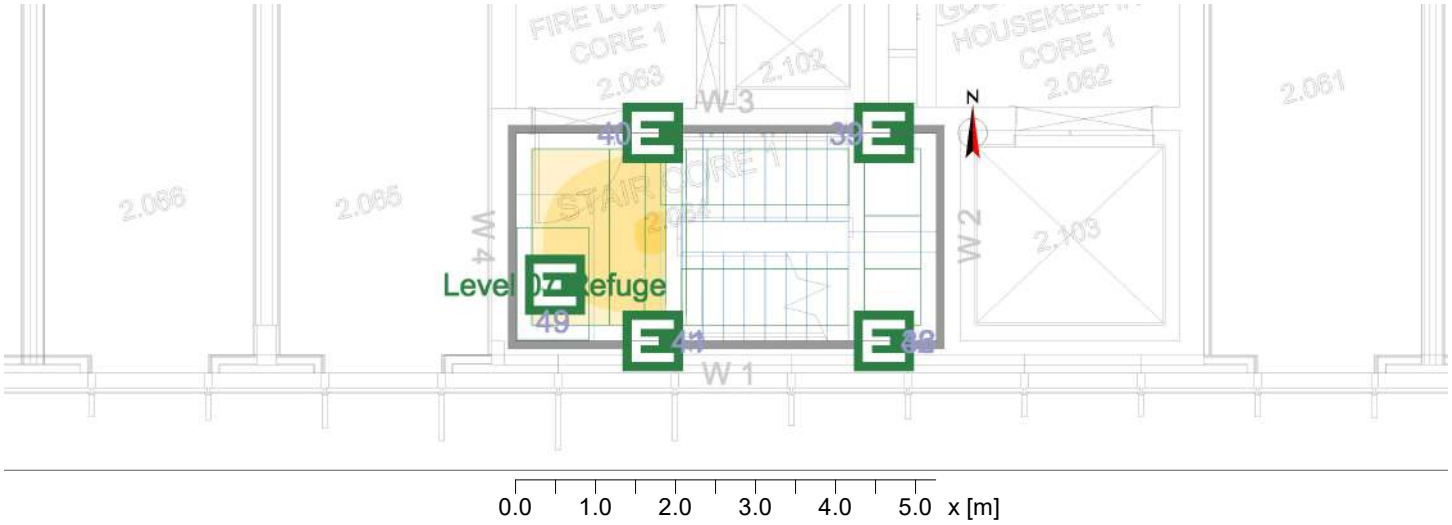
Average illuminance	$\bar{E}_m$	135 lx
Minimum illuminance	E_{min}	104 lx
Maximum illuminance	E_{max}	167 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.62)

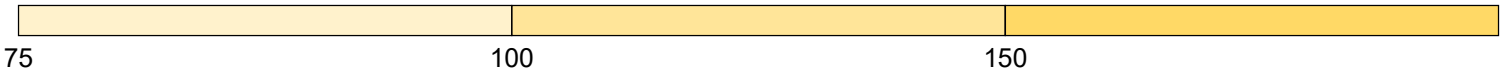
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.13 Result overview, Level 01M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	7.92 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

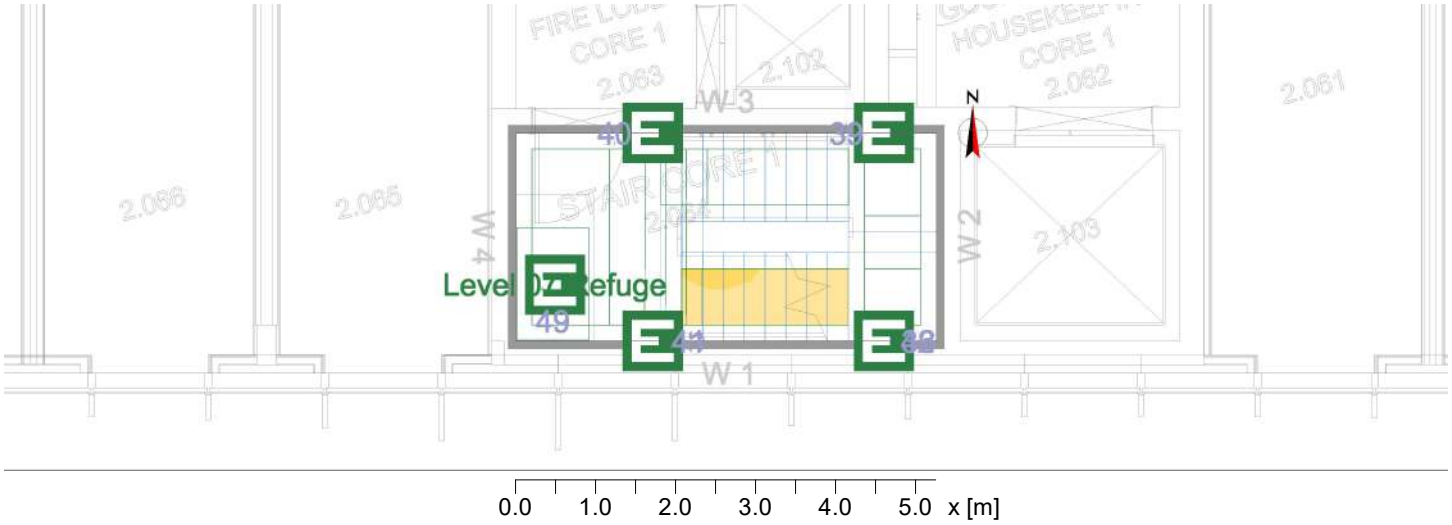
Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	77 lx
Maximum illuminance	E_{max}	154 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.5 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.99 (0.5)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.14 Result overview, Tread (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

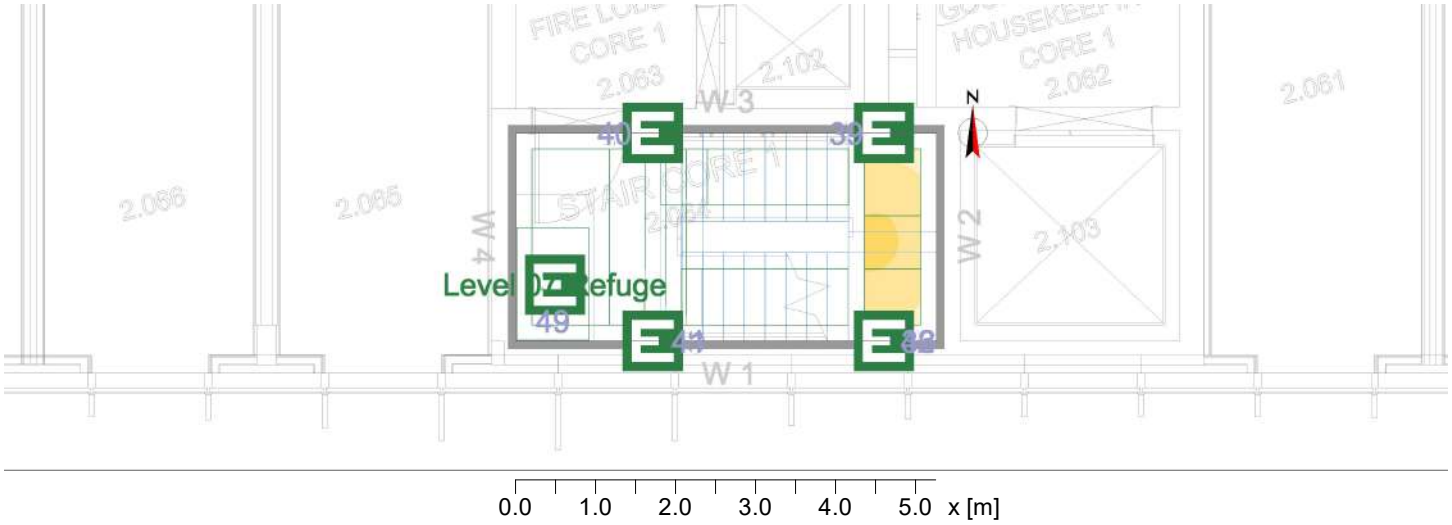
Average illuminance	$\bar{E}_m$	131 lx
Minimum illuminance	E_{min}	103 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.15 Result overview, Landing (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.41 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

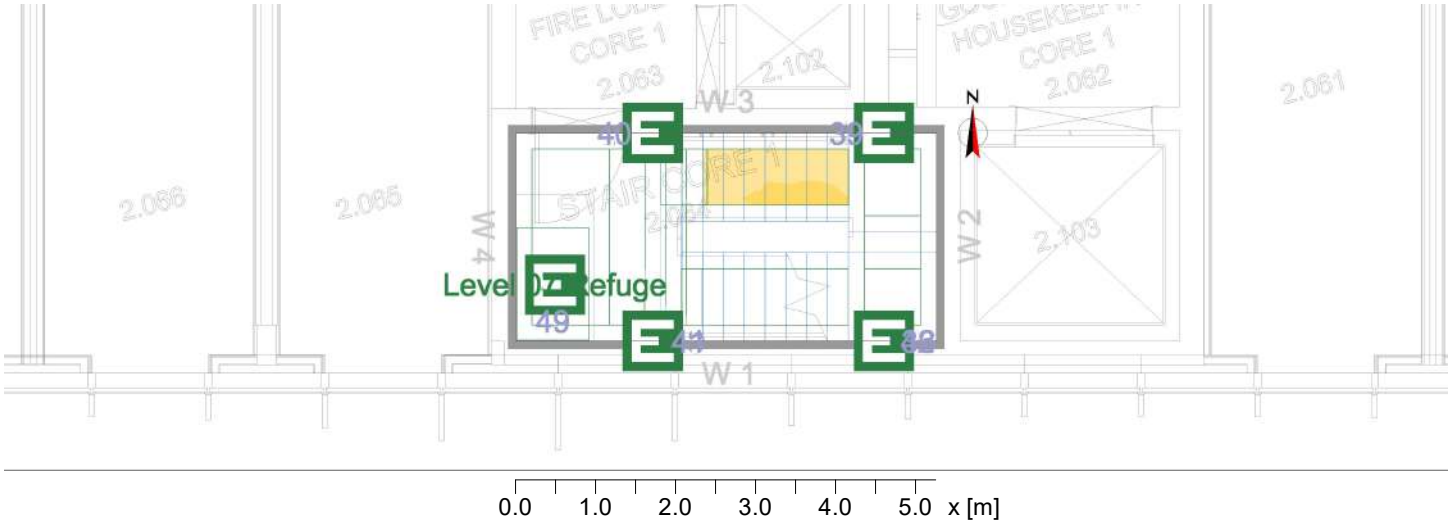
Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	84 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.54 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.89 (0.53)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.16 Result overview, Tread (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

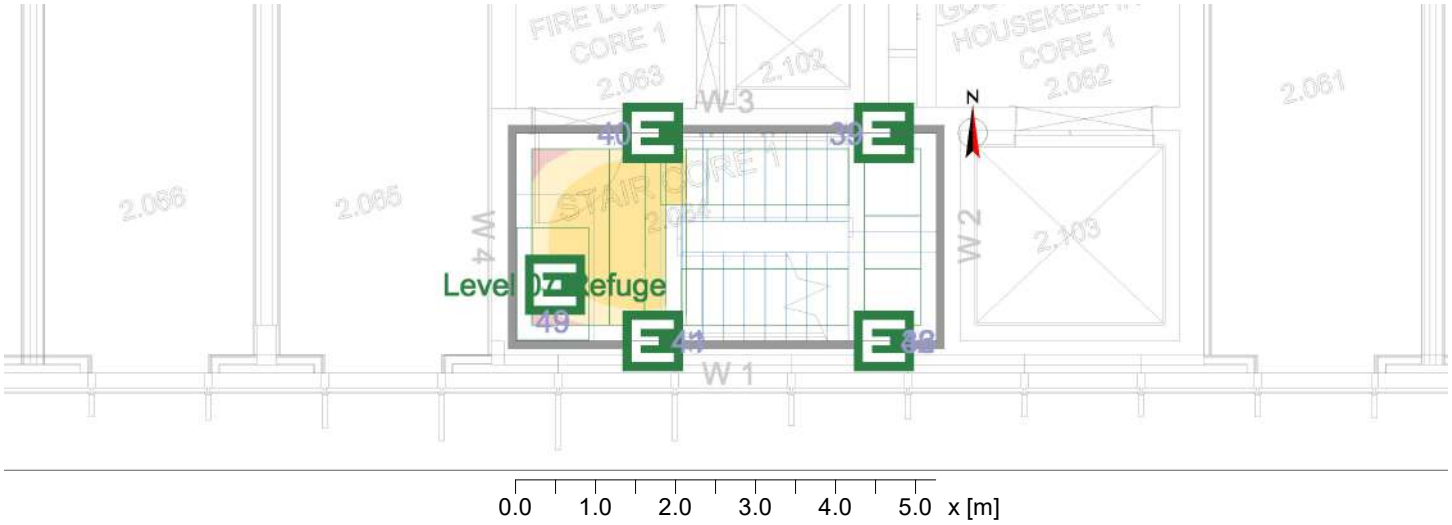
Average illuminance	$\bar{E}_m$	137 lx
Minimum illuminance	E_{min}	105 lx
Maximum illuminance	E_{max}	168 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.61 (0.62)

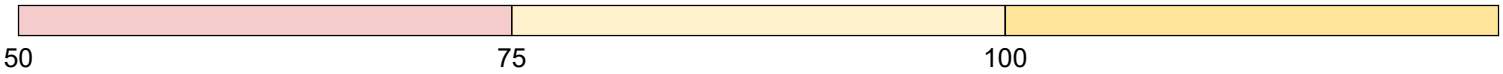
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.17 Result overview, Level 02





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	10.74 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

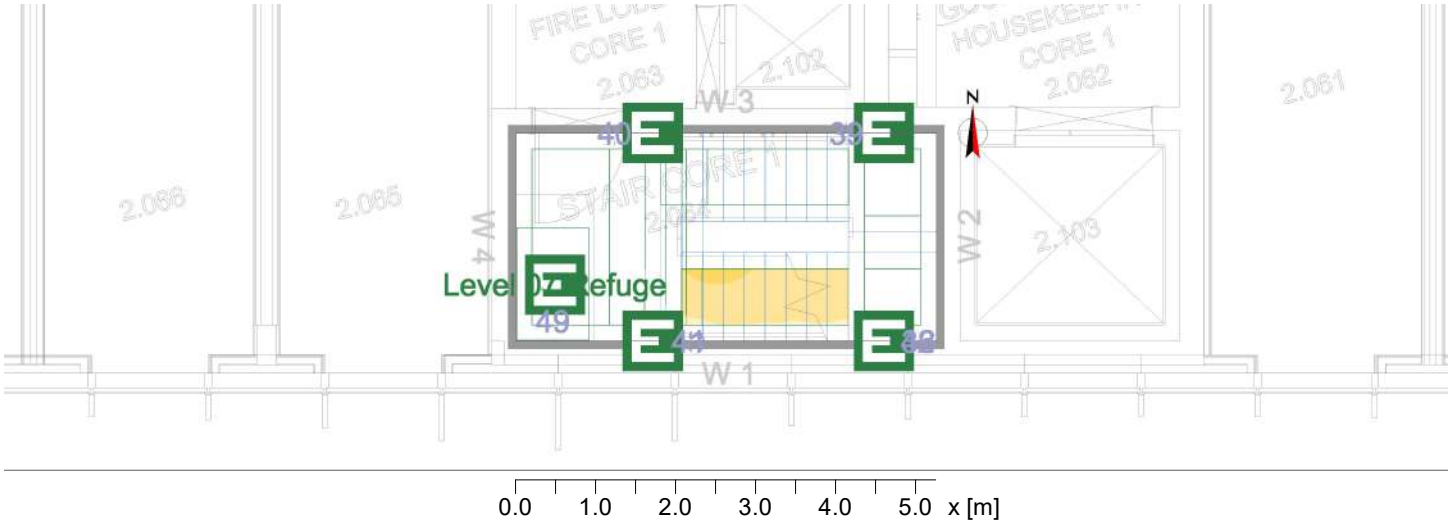
Average illuminance	$\bar{E}_m$	112 lx
Minimum illuminance	E_{min}	74 lx
Maximum illuminance	E_{max}	150 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.52 (0.66)
Diversity U_d	E_{min}/E_{max}	1:2.03 (0.49)

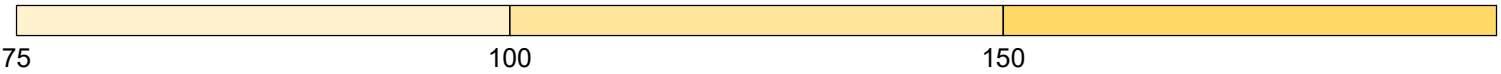
Type No.\Make

2 42E x **Thorn**
Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.18 Result overview, Tread (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.62)

Type No.\Make

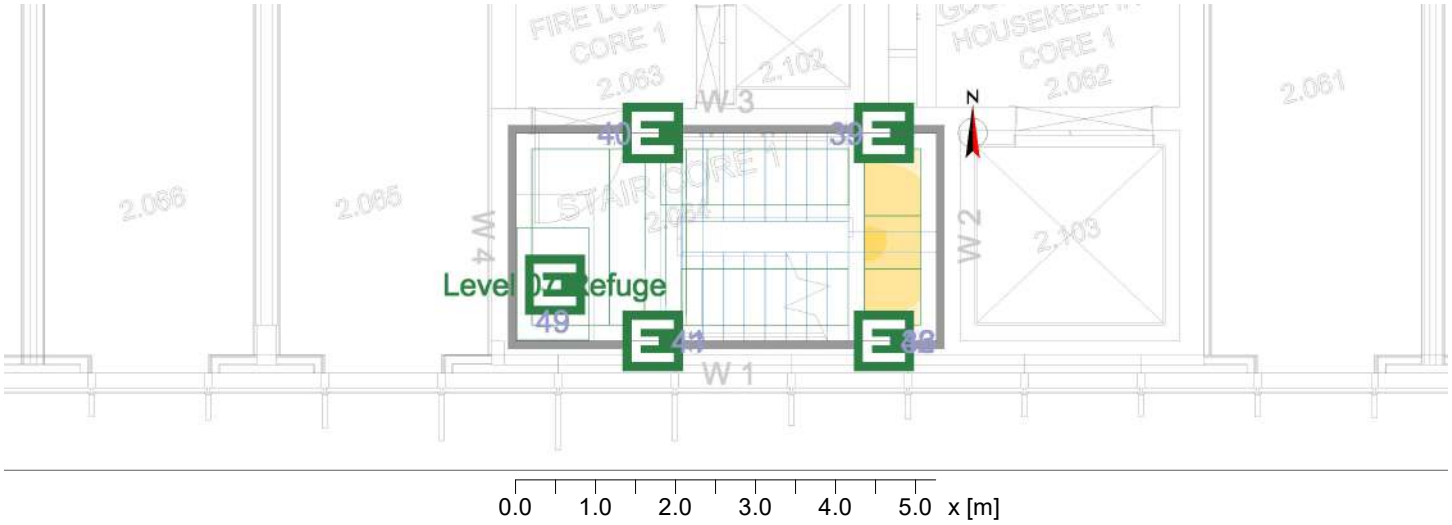
Thorn

2 42E x

Order No.	: -- Emergency Lighting --
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.19 Result overview, Landing (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	12.24 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

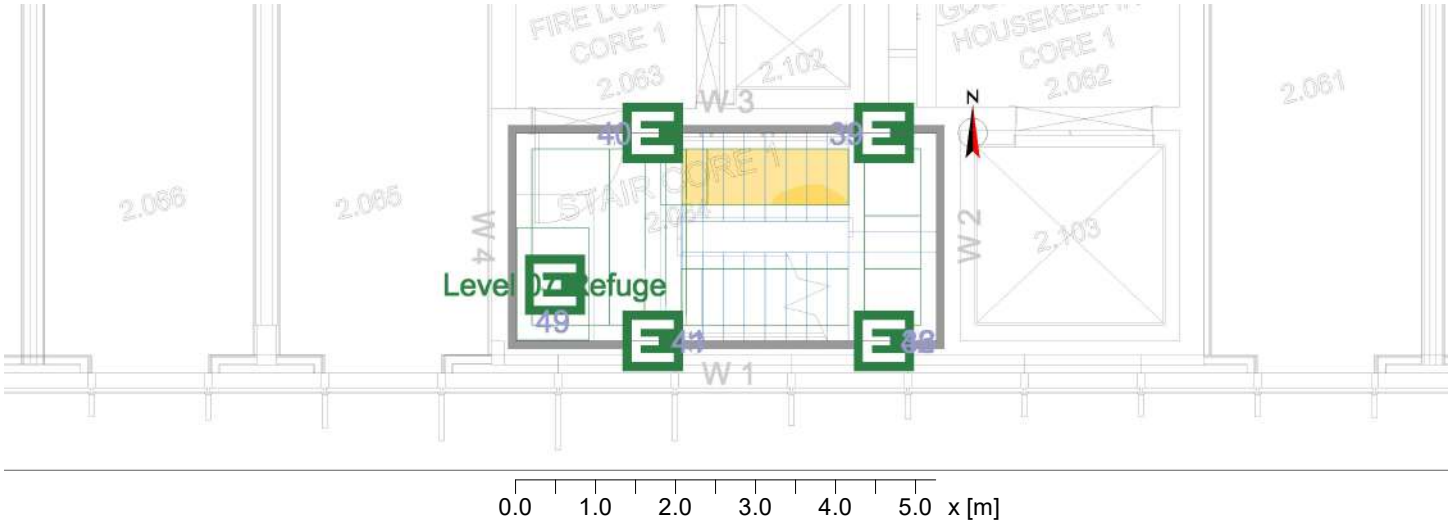
Average illuminance	$\bar{E}_m$	125 lx
Minimum illuminance	E_{min}	80 lx
Maximum illuminance	E_{max}	153 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.56 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.91 (0.52)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.20 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

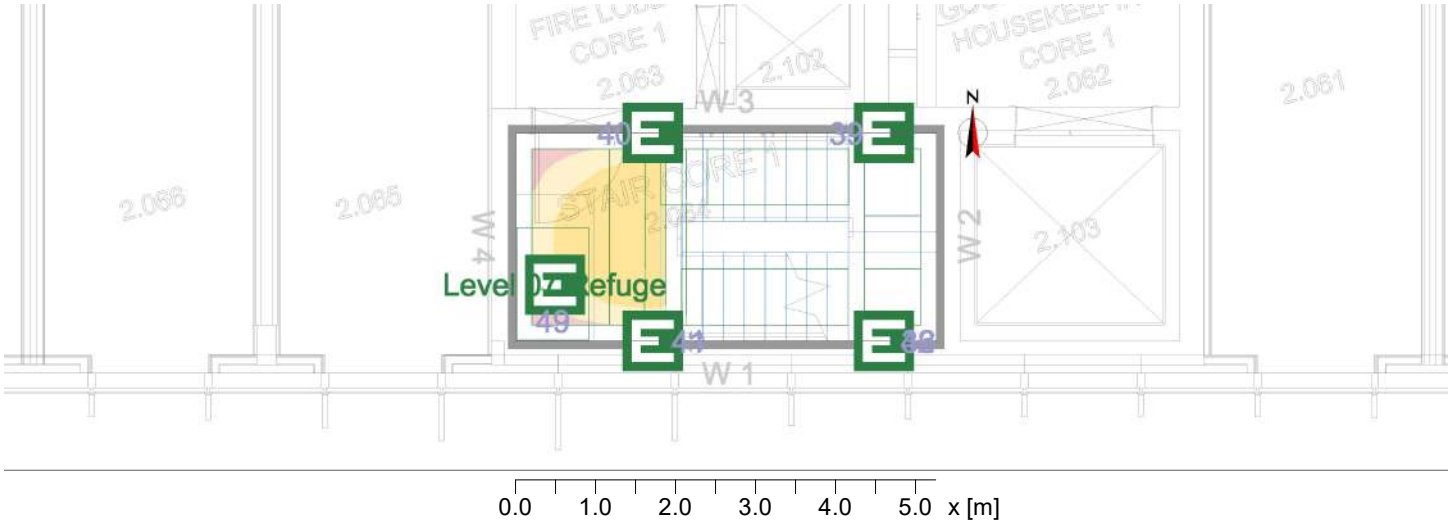
Average illuminance	$\bar{E}_m$	131 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	164 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

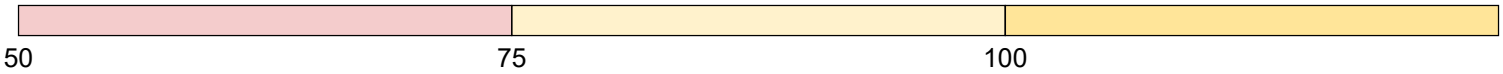
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.21 Result overview, Level 03





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	13.73 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

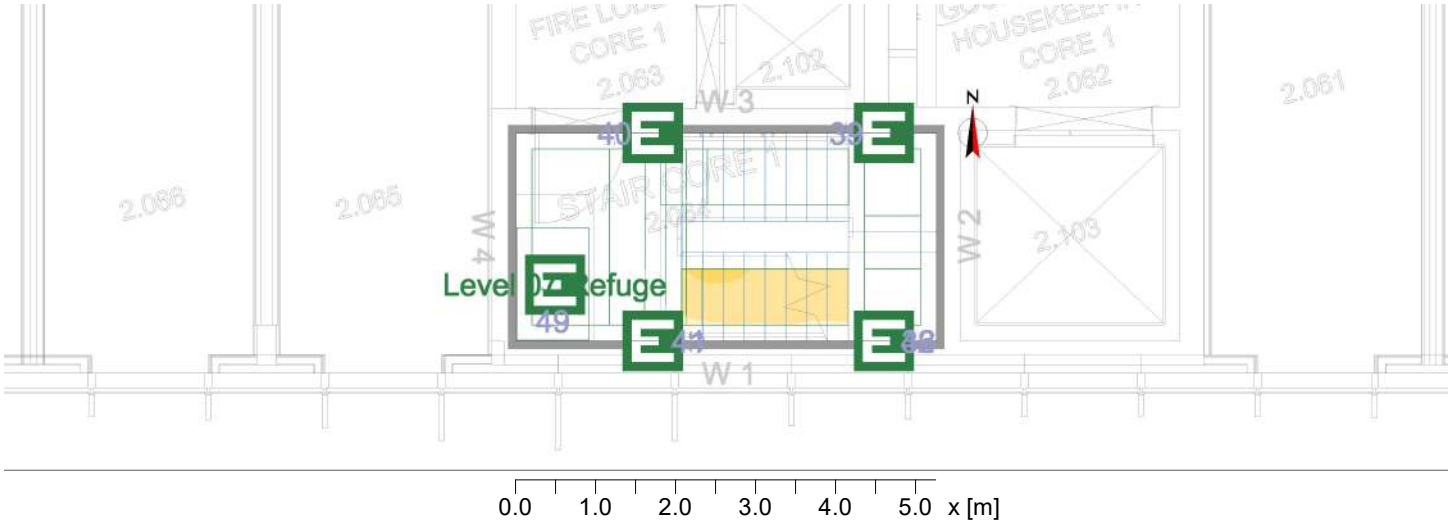
Average illuminance	$\bar{E}_m$	108 lx
Minimum illuminance	E_{min}	70 lx
Maximum illuminance	E_{max}	145 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.56 (0.64)
Diversity U_d	E_{min}/E_{max}	1:2.09 (0.48)

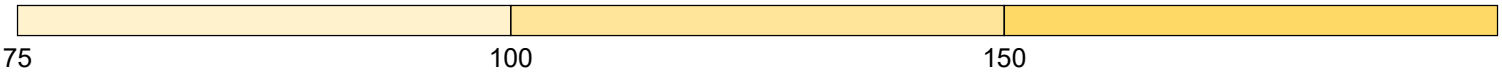
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.22 Result overview, Tread (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

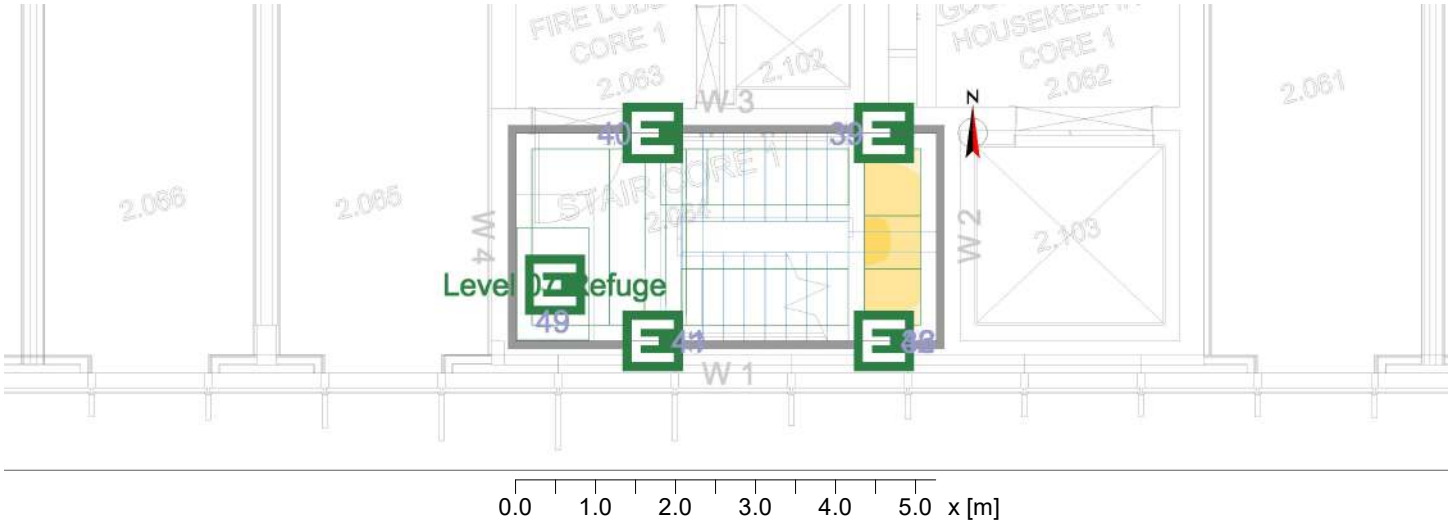
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	100 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.58 (0.63)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.23 Result overview, Landing (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	15.24 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

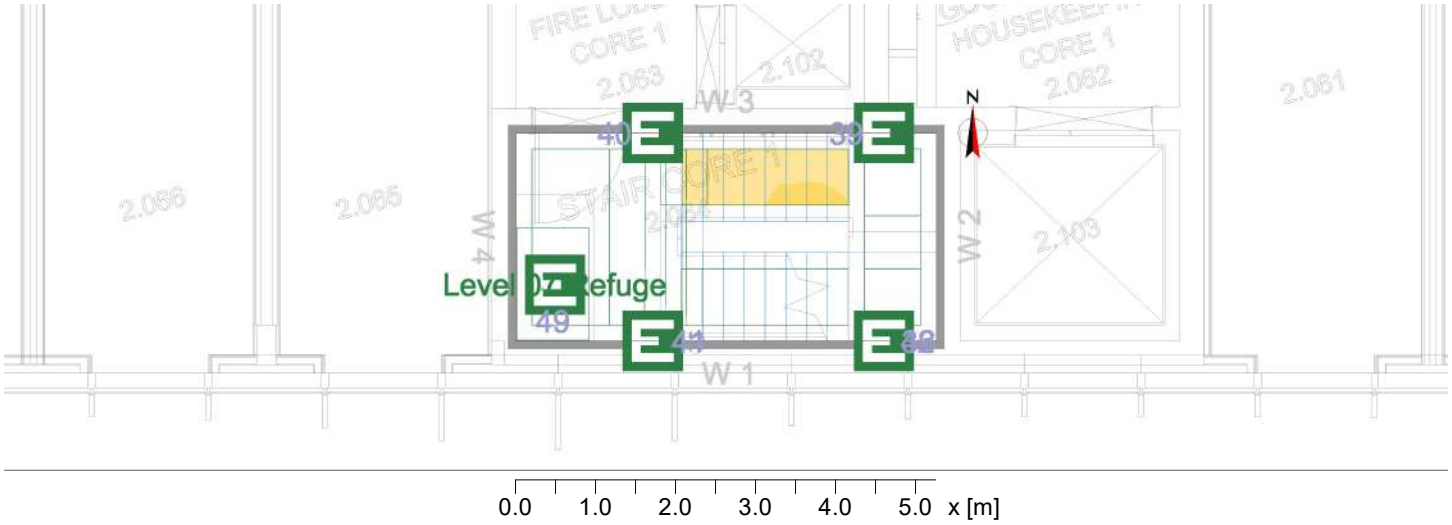
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	82 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.53 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.88 (0.53)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.24 Result overview, Tread (xii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

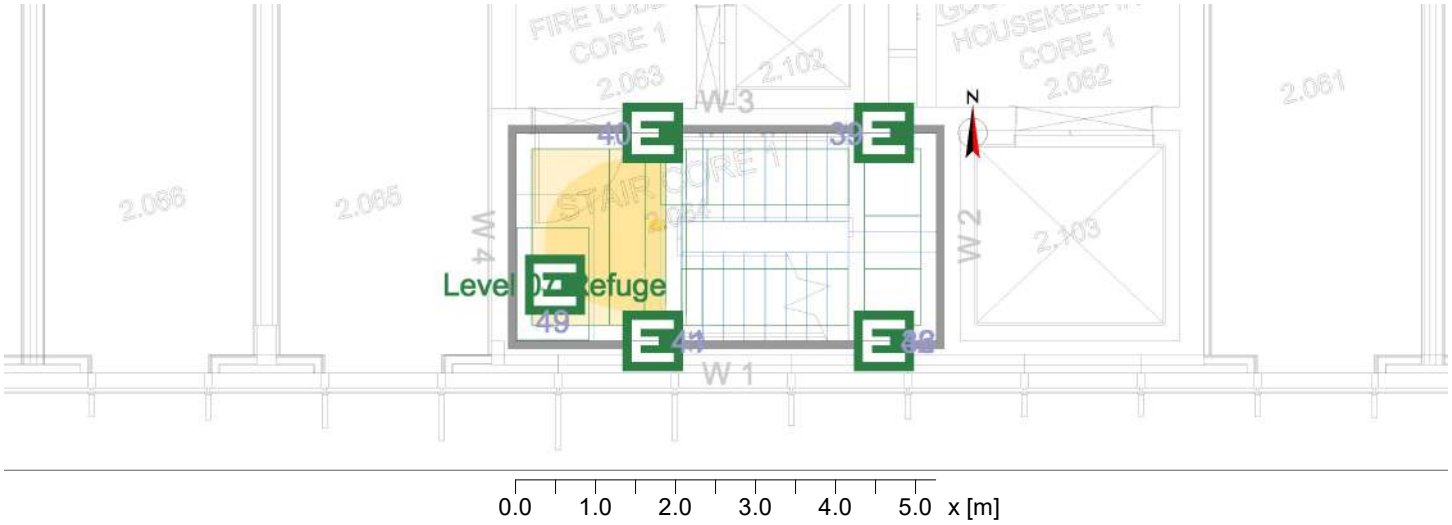
Average illuminance	$\bar{E}_m$	134 lx
Minimum illuminance	E_{min}	105 lx
Maximum illuminance	E_{max}	166 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.58 (0.63)

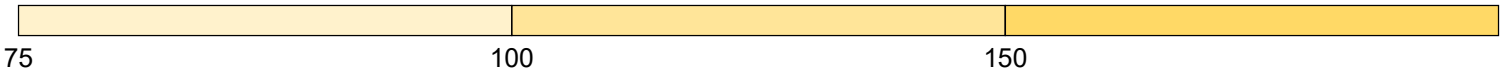
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.25 Result overview, Level 04





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	16.73 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

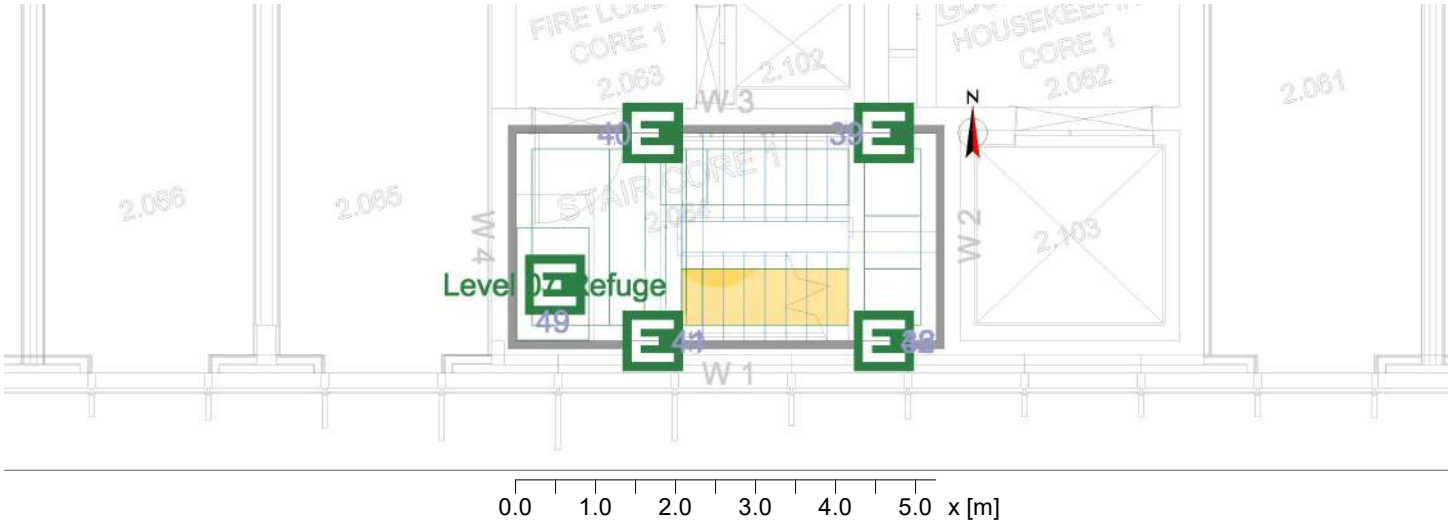
Average illuminance	$\bar{E}_m$	114 lx
Minimum illuminance	E_{min}	75 lx
Maximum illuminance	E_{max}	151 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.51 (0.66)
Diversity U_d	E_{min}/E_{max}	1:2 (0.5)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.26 Result overview, Tread (xiii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

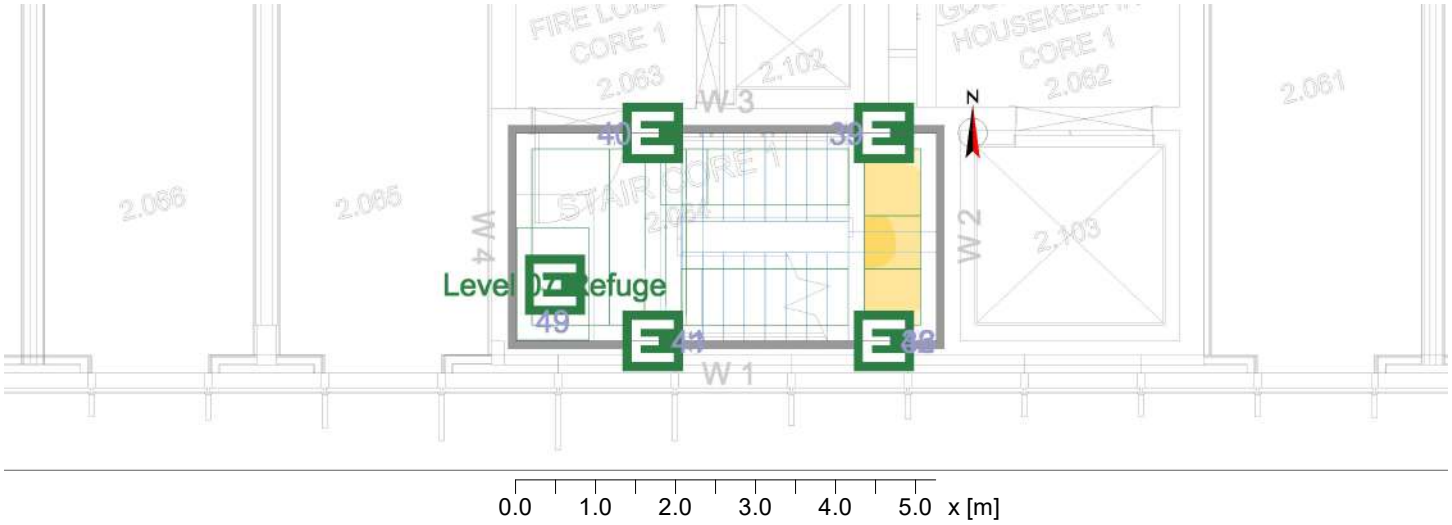
Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	161 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.62)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.27 Result overview, Landing (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	18.24 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	88 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.47 (0.68)
Diversity U_d	E_{min}/E_{max}	1:1.78 (0.56)

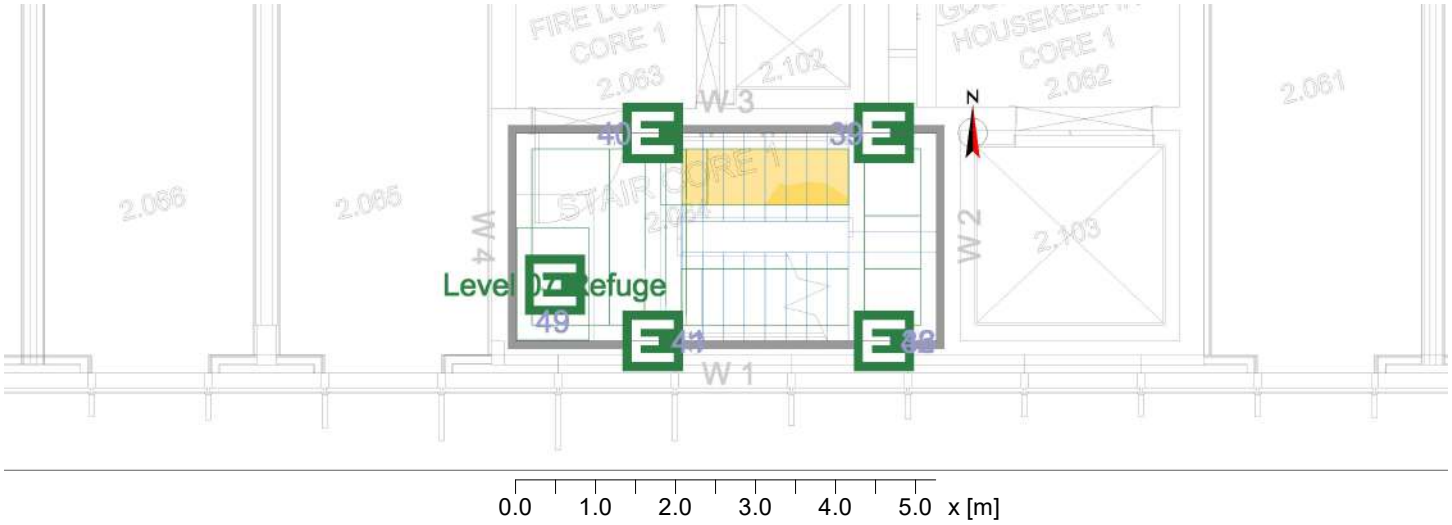
Type No.\Make

Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.28 Result overview, Tread (xiv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

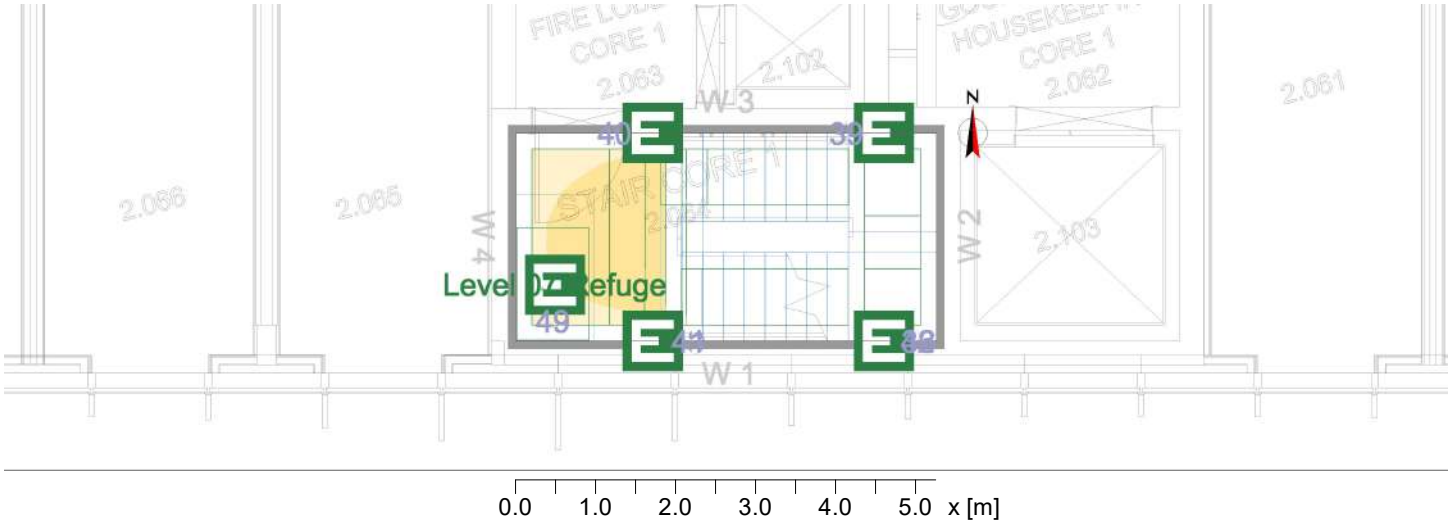
Average illuminance	$\bar{E}_m$	134 lx
Minimum illuminance	E_{min}	105 lx
Maximum illuminance	E_{max}	166 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.29 Result overview, Level 05





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	19.73 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

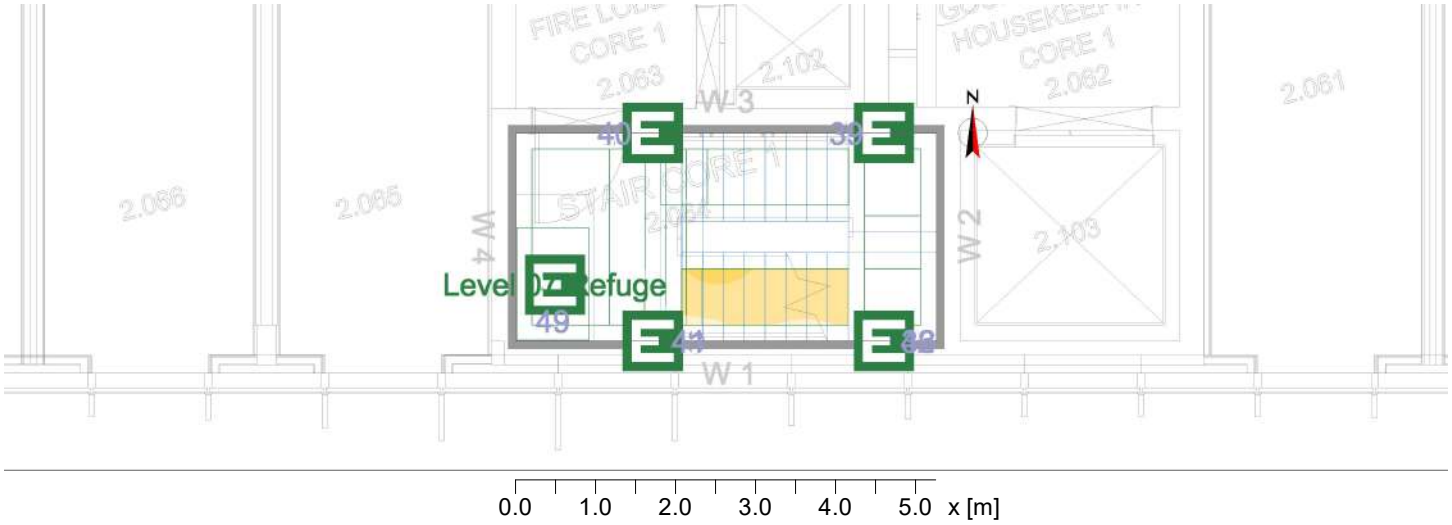
Average illuminance	$\bar{E}_m$	113 lx
Minimum illuminance	E_{min}	76 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.48 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.96 (0.51)

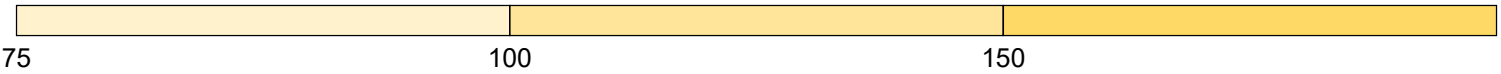
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.30 Result overview, Tread (xv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

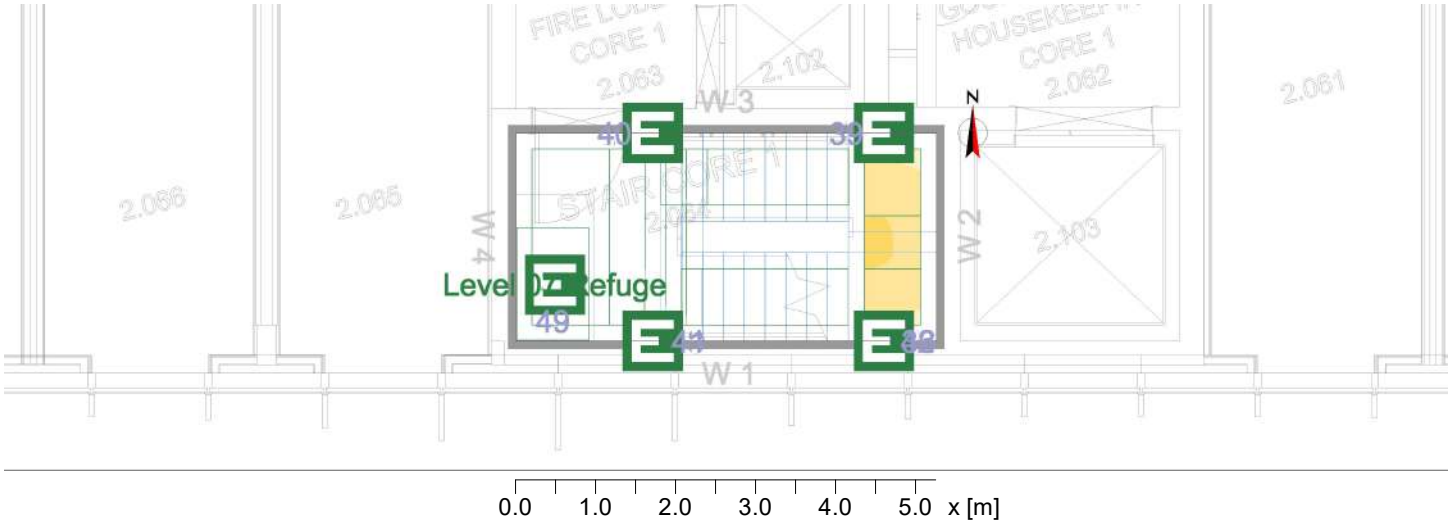
Type No.\Make

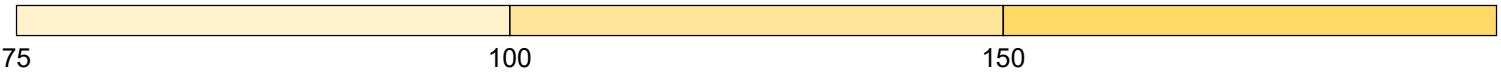
Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.31 Result overview, Landing (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	21.24 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

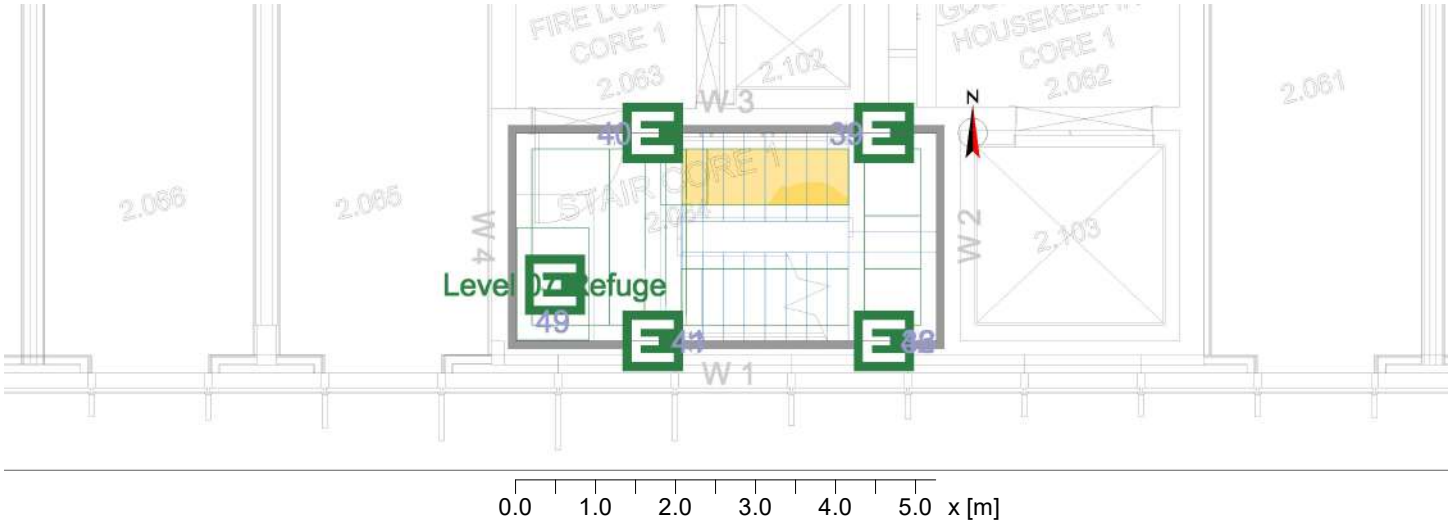
Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	87 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.49 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.8 (0.55)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

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	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

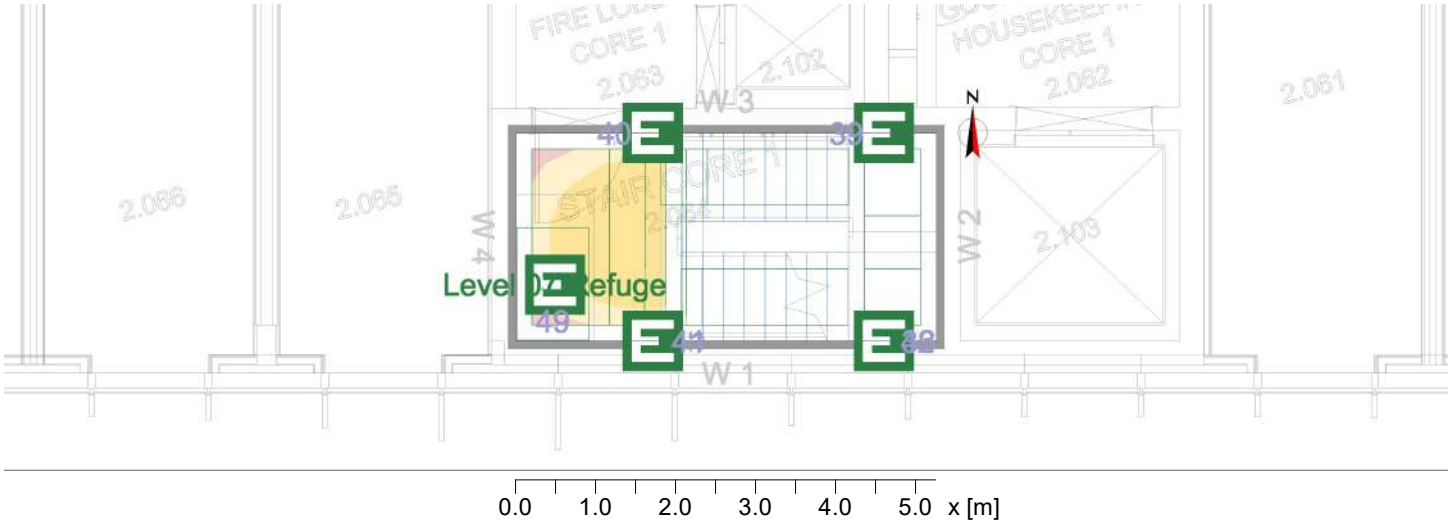
Average illuminance	$\bar{E}_m$	133 lx
Minimum illuminance	E_{min}	104 lx
Maximum illuminance	E_{max}	165 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

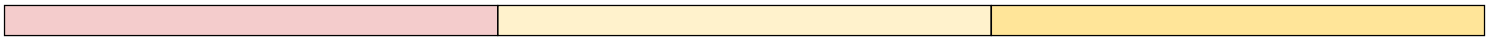
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.33 Result overview, Level 06





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	22.73 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

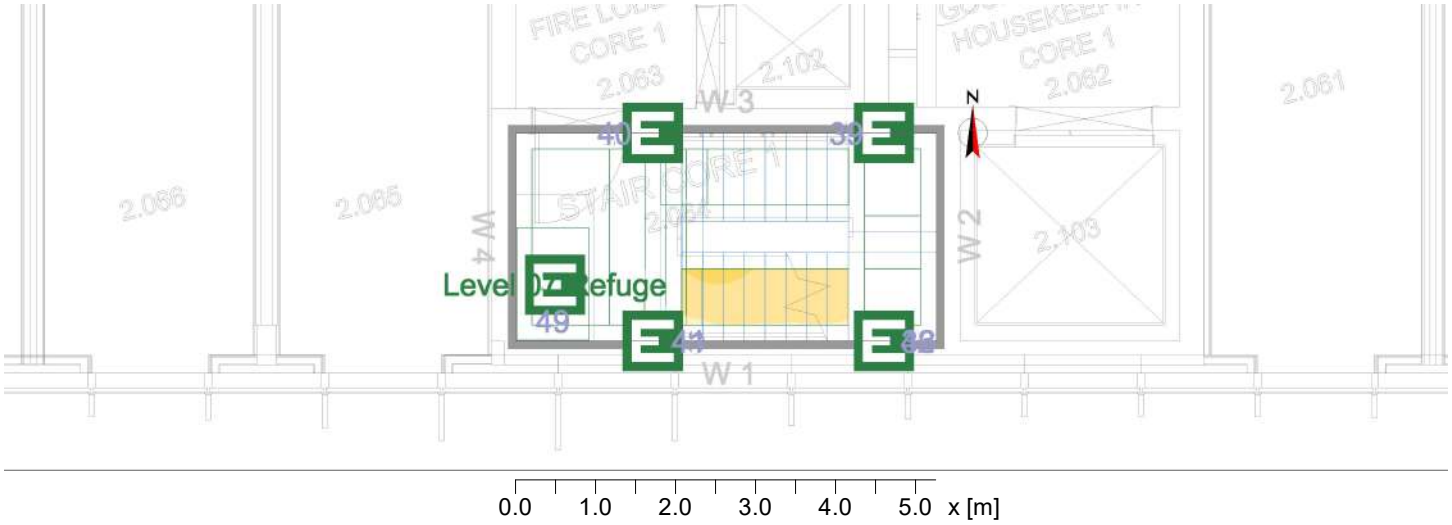
Average illuminance	$\bar{E}_m$	111 lx
Minimum illuminance	E_{min}	73 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.51 (0.66)
Diversity U_d	E_{min}/E_{max}	1:2.01 (0.5)

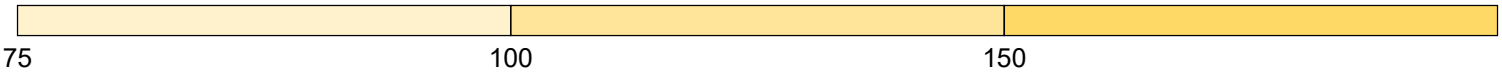
Type No.\Make

2 42E x **Thorn**
Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.34 Result overview, Tread (xvii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

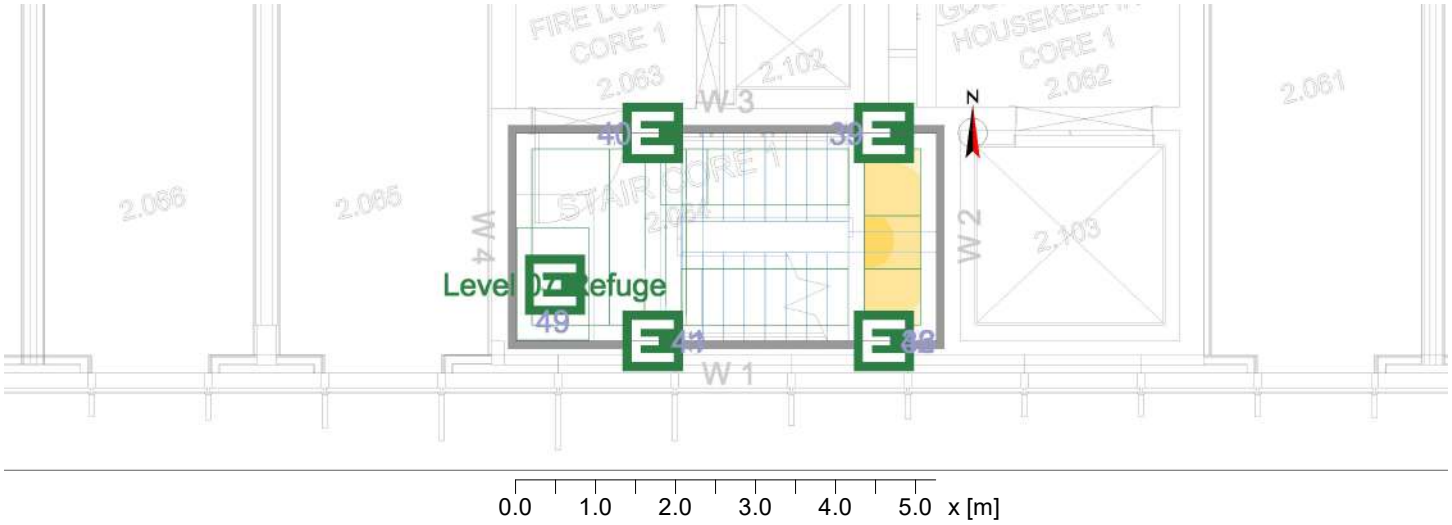
Type No.\Make

Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.35 Result overview, Landing (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	24.24 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

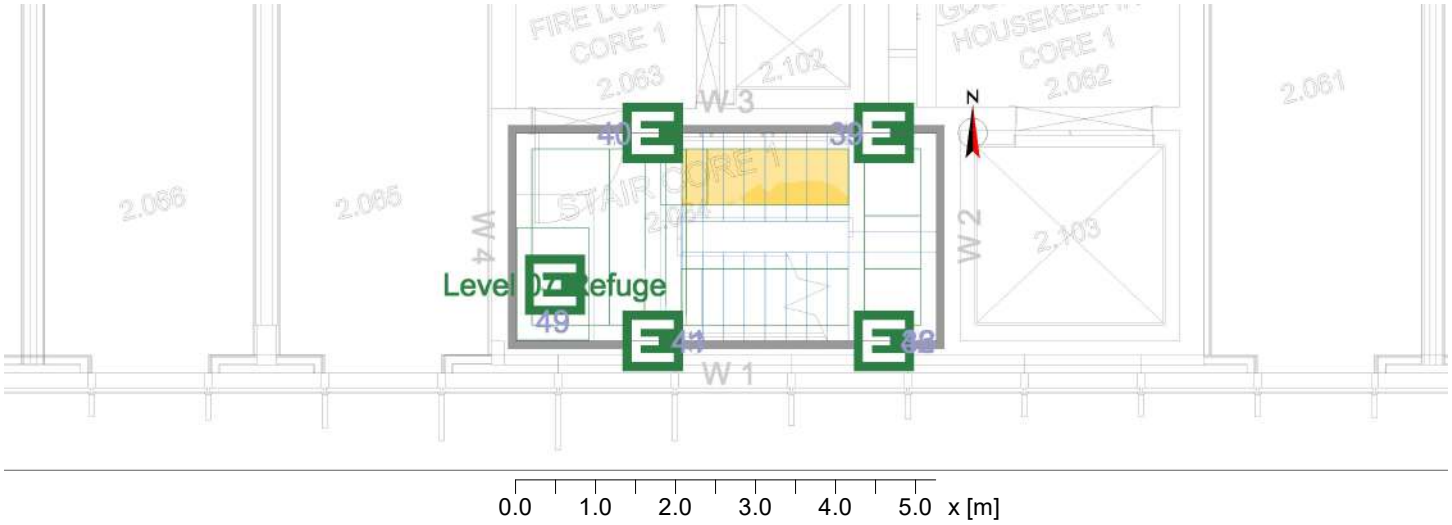
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	83 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.53 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.89 (0.53)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.36 Result overview, Tread (xviii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

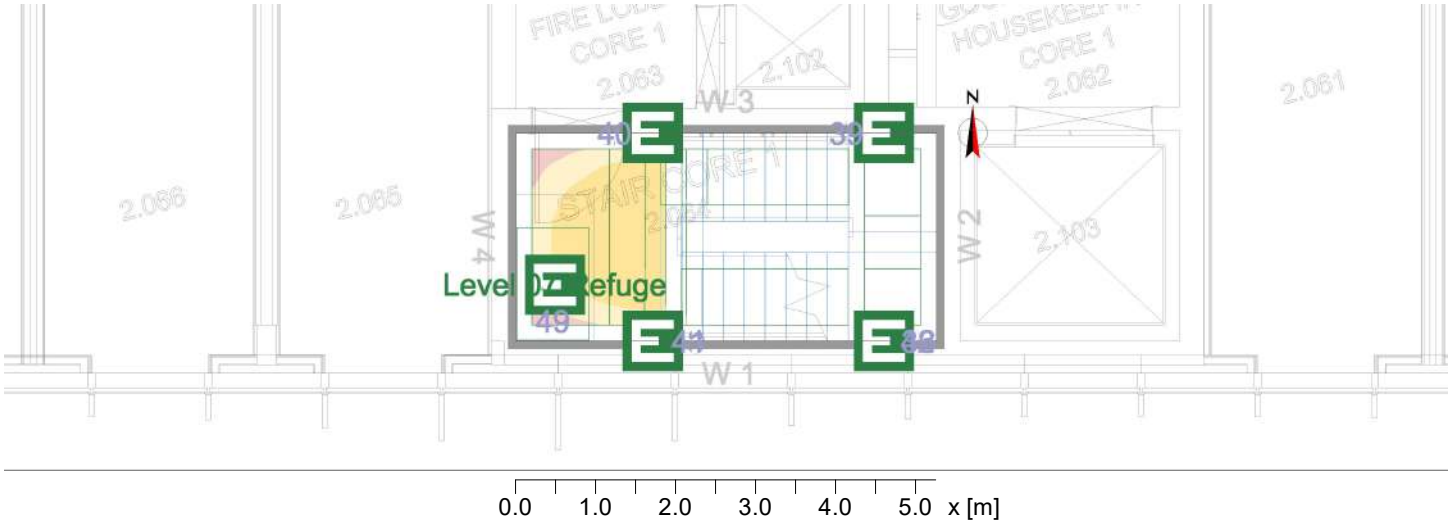
Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	105 lx
Maximum illuminance	E_{max}	168 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.62)

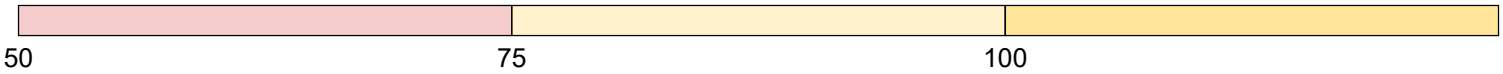
Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.37 Result overview, Level 07





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	25.73 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

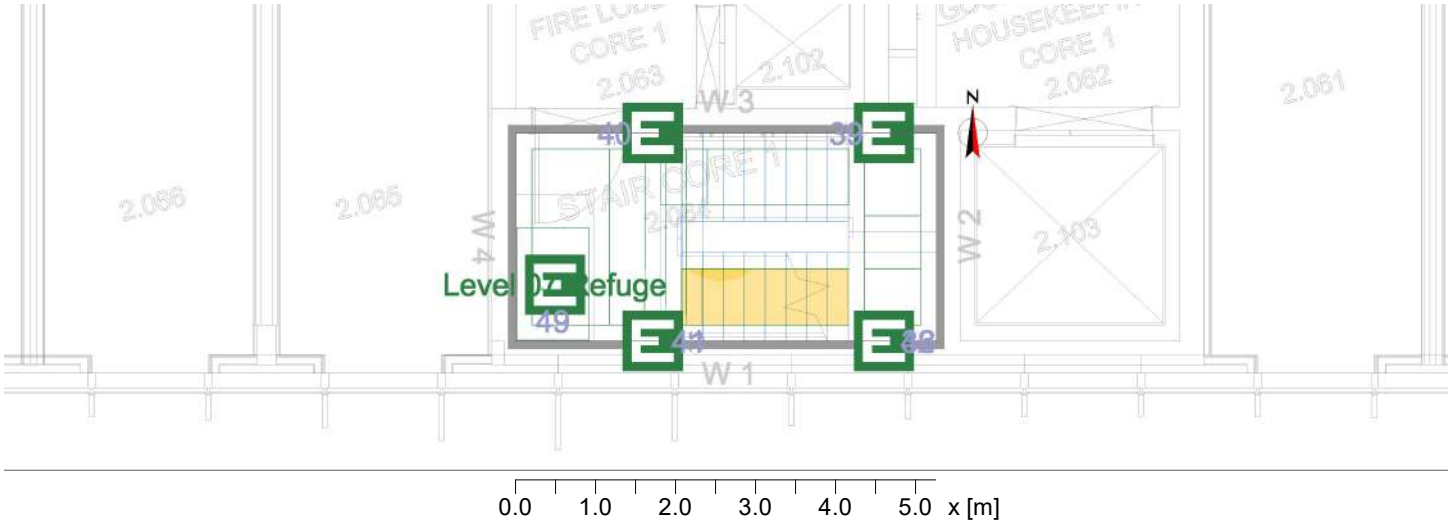
Average illuminance	$\bar{E}_m$	111 lx
Minimum illuminance	E_{min}	71 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.57 (0.64)
Diversity U_d	E_{min}/E_{max}	1:2.12 (0.47)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.38 Result overview, Tread (xix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	100 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.65)

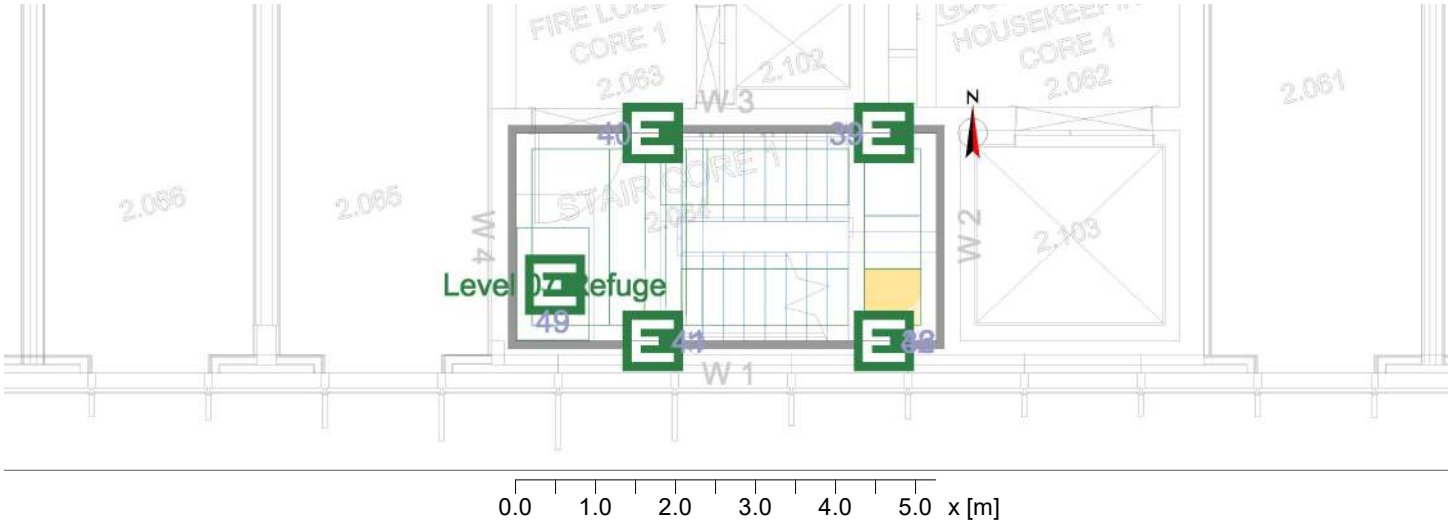
Type No.\Make

Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.39 Result overview, Landing (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	27.02 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

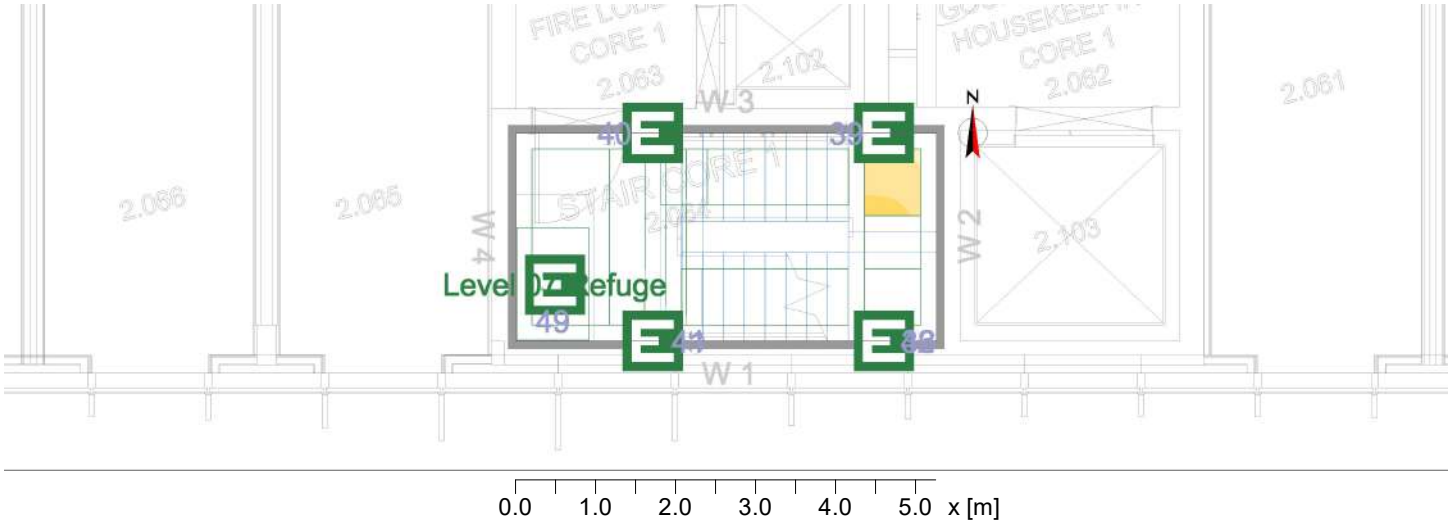
Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	87 lx
Maximum illuminance	E_{max}	143 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.40 Result overview, Landing (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	27.30 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

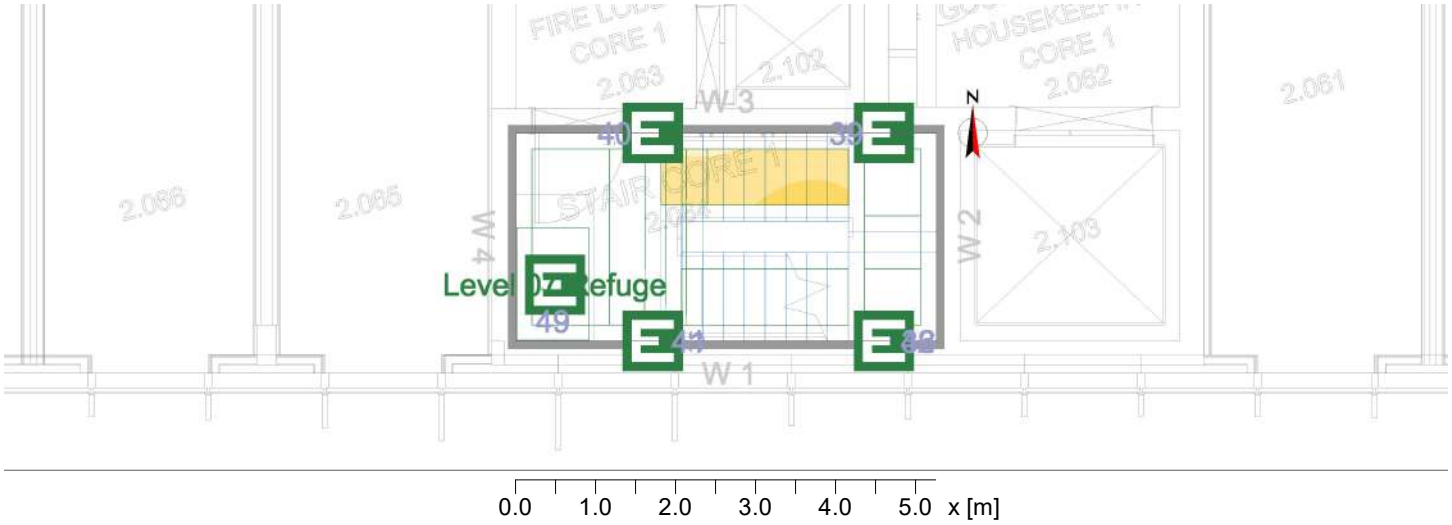
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	94 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.39 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.72 (0.58)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.41 Result overview, Tread (xx)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	169 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.71 (0.59)

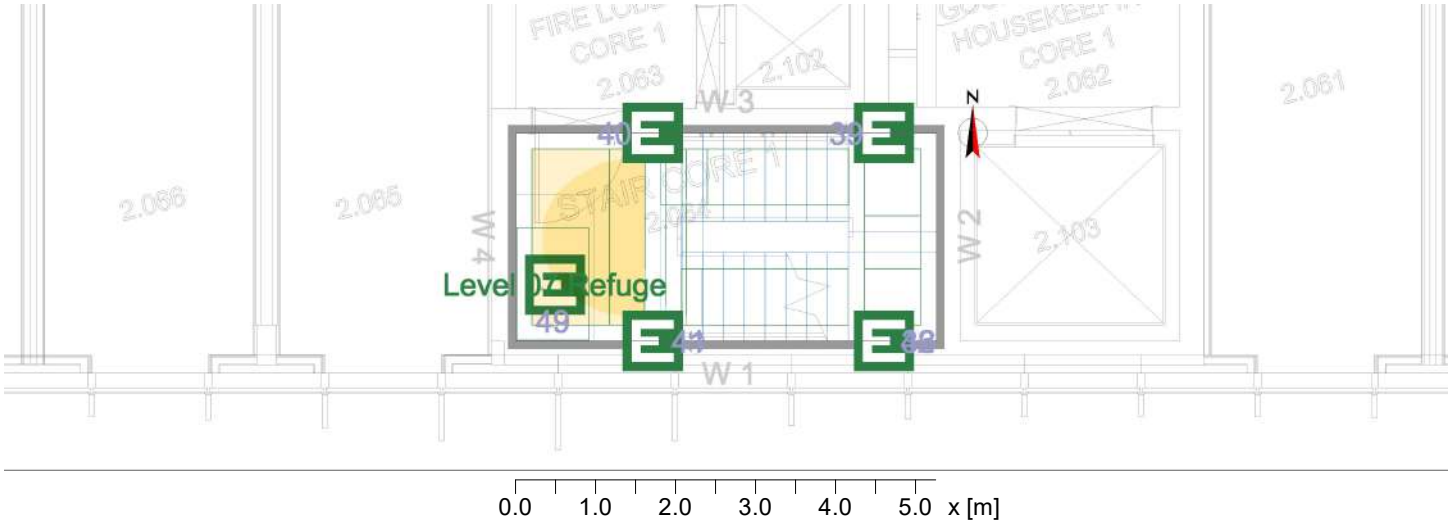
Type No.\Make

Thorn

2 42E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.42 Result overview, Level 08





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	28.73 m
Maintenance factor	0.80
Total luminous flux	75012 lm
Total power	554.4 W
Total power per area (13.60 m²)	40.77 W/m²

Illuminance

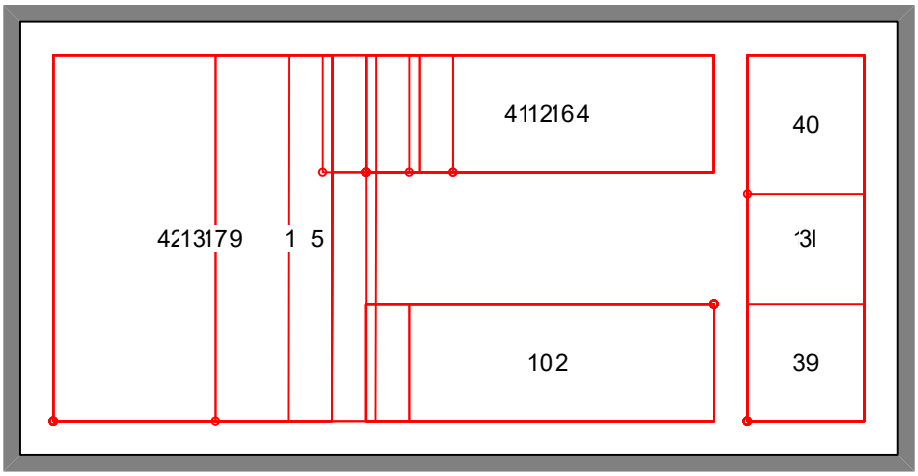
Average illuminance	$\bar{E}_m$	113 lx
Minimum illuminance	E_{min}	78 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.45 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.91 (0.52)

Type No.\Make

		Thorn	
2	42E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

1.1 Summary, Stair Core 1

1.1.43 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	5 x 12	140 lx	104 lx	165 lx	0.74	0.63
1.2	Tread (i)	14 x 4	138 lx	112 lx	164 lx	0.81	0.68
1.3	Landing (i)	4 x 14	144 lx	103 lx	171 lx	0.72	0.60
1.4	Tread (ii)	12 x 4	155 lx	122 lx	184 lx	0.79	0.66
1.5	Level 00M	4 x 6	152 lx	117 lx	179 lx	0.77	0.65
1.6	Tread (iii)	14 x 4	146 lx	118 lx	177 lx	0.81	0.67
1.7	Landing (ii)	4 x 14	135 lx	87 lx	167 lx	0.64	0.52
1.8	Tread (iv)	12 x 4	145 lx	112 lx	173 lx	0.77	0.64
1.9	Level 01	6 x 6	116 lx	77 lx	150 lx	0.66	0.51
1.10	Tread (v)	16 x 4	128 lx	96 lx	158 lx	0.75	0.61
1.11	Landing (iii)	4 x 14	130 lx	88 lx	157 lx	0.68	0.56
1.12	Tread (vi)	16 x 4	135 lx	104 lx	167 lx	0.77	0.62
1.13	Level 01M	5 x 6	116 lx	77 lx	154 lx	0.67	0.50
1.14	Tread (vii)	16 x 4	131 lx	103 lx	163 lx	0.78	0.63
1.15	Landing (iv)	4 x 14	129 lx	84 lx	158 lx	0.65	0.53
1.16	Tread (viii)	14 x 4	137 lx	105 lx	168 lx	0.76	0.62
1.17	Level 02	6 x 6	112 lx	74 lx	150 lx	0.66	0.49
1.18	Tread (ix)	16 x 4	127 lx	99 lx	158 lx	0.78	0.62
1.19	Landing (v)	4 x 14	125 lx	80 lx	153 lx	0.64	0.52
1.20	Tread (x)	16 x 4	131 lx	101 lx	164 lx	0.77	0.62
1.21	Level 03	5 x 6	108 lx	70 lx	145 lx	0.64	0.48
1.22	Tread (xi)	16 x 4	127 lx	100 lx	157 lx	0.78	0.63
1.23	Landing (vi)	4 x 14	127 lx	82 lx	155 lx	0.65	0.53
1.24	Tread (xii)	16 x 4	134 lx	105 lx	166 lx	0.78	0.63
1.25	Level 04	5 x 6	114 lx	75 lx	151 lx	0.66	0.50
1.26	Tread (xiii)	16 x 4	129 lx	101 lx	161 lx	0.78	0.62
1.27	Landing (vii)	4 x 14	129 lx	88 lx	156 lx	0.68	0.56
1.28	Tread (xiv)	16 x 4	134 lx	105 lx	166 lx	0.78	0.63
1.29	Level 05	5 x 6	113 lx	76 lx	149 lx	0.67	0.51
1.30	Tread (xv)	16 x 4	127 lx	96 lx	158 lx	0.76	0.61
1.31	Landing (viii)	4 x 14	129 lx	87 lx	156 lx	0.67	0.55
1.32	Tread (xvi)	16 x 4	133 lx	104 lx	165 lx	0.78	0.63

1.1 Summary, Stair Core 1

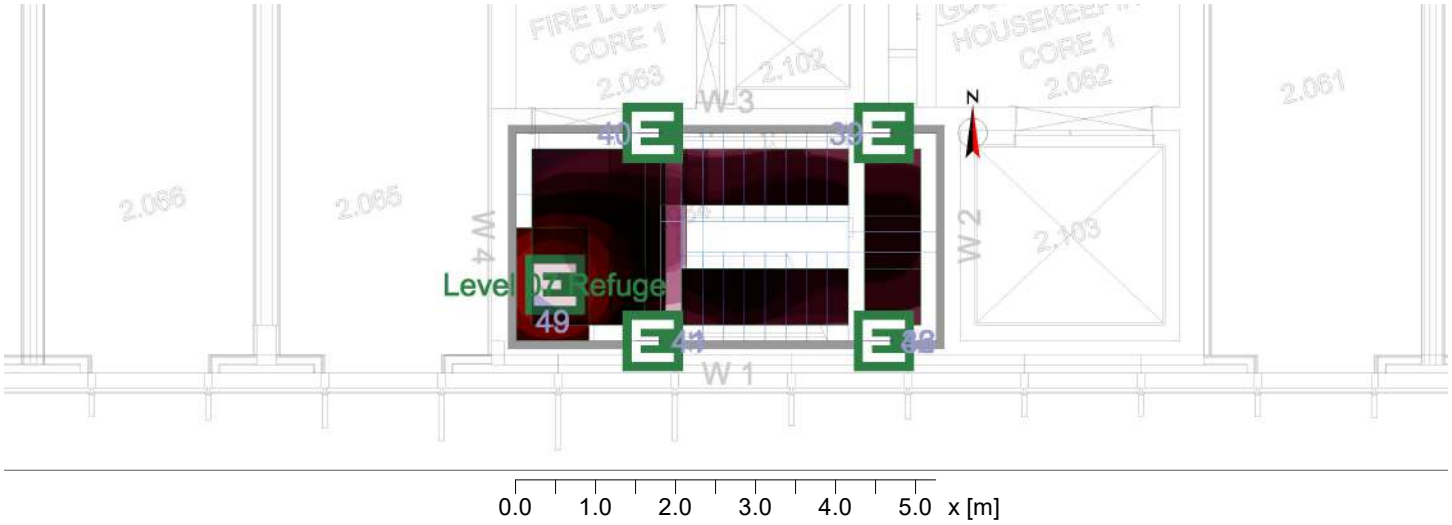
1.1.43 Result overview, Ref Planes (1)

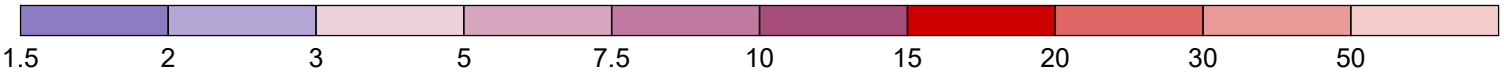
1.33	Level 06	5 x 6	111 lx	73 lx	147 lx	0.66	0.50
1.34	Tread (xvii)	16 x 4	127 lx	99 lx	158 lx	0.78	0.63
1.35	Landing (ix)	4 x 14	127 lx	83 lx	157 lx	0.65	0.53
1.36	Tread (xviii)	16 x 4	138 lx	105 lx	168 lx	0.76	0.62
1.37	Level 07	5 x 6	111 lx	71 lx	149 lx	0.64	0.47
1.38	Tread (xix)	15 x 4	129 lx	100 lx	155 lx	0.78	0.65
1.39	Landing (x)	4 x 4	116 lx	87 lx	143 lx	0.75	0.61
1.40	Landing (xi)	4 x 5	130 lx	94 lx	162 lx	0.72	0.58
1.41	Tread (xx)	17 x 4	130 lx	99 lx	169 lx	0.76	0.59
1.42	Level 08	4 x 6	113 lx	78 lx	149 lx	0.69	0.52
Summary			**125 lx**	**70 lx**	**184 lx**	**0.55**	**0.38**

1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)





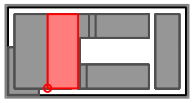
Illuminance [lx]

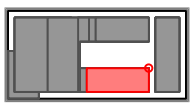
General

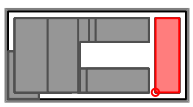
Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
1 Level 00			
Calculation field: 0.9m x 2.19m (5 x 12 pts), Height = 0.00m			
1	2.95 lx	8.38 lx	1: 2.83
	>= 1 lx		>= 1 : 40
2 Tread (i)			
Calculation field: 2.13m x 0.7m (14 x 4 pts), Height = 1.31m			
2	3.36 lx	8.46 lx	1: 2.52
	>= 1 lx		>= 1 : 40
3 Landing (i)			
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 1.31m			
3	2.96 lx	8.88 lx	1: 3.00
	>= 1 lx		>= 1 : 40







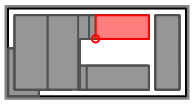
1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

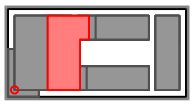
4 Tread (ii)
Calculation field: 1.82m x 0.7m (12 x 4 pts), Height = 2.47m

4	3.71 lx	9.68 lx	1: 2.61
	>= 1 lx		>= 1 : 40



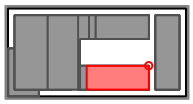
5 Level 00M
Calculation field: 1.22m x 2.19m (4 x 6 pts), Height = 2.47m

5	3.02 lx	8.69 lx	1: 2.88
	>= 1 lx		>= 1 : 40



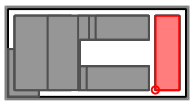
6 Tread (iii)
Calculation field: 2.13m x 0.7m (14 x 4 pts), Height = 3.79m

6	3.38 lx	8.52 lx	1: 2.52
	>= 1 lx		>= 1 : 40



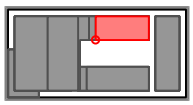
7 Landing (ii)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 3.79m

7	3.29 lx	9.41 lx	1: 2.86
	>= 1 lx		>= 1 : 40



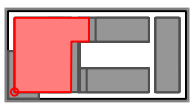
8 Tread (iv)
Calculation field: 1.84m x 0.7m (12 x 4 pts), Height = 4.94m

8	3.41 lx	9.67 lx	1: 2.84
	>= 1 lx		>= 1 : 40



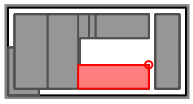
9 Level 01
Calculation field: 2.19m x 2.19m (6 x 6 pts), Height = 4.94m

9	4.76 lx	65.85 lx	1: 13.85
	>= 1 lx		>= 1 : 40



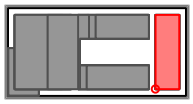
10 Tread (v)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 6.42m

10	4.80 lx	14.11 lx	1: 2.94
	>= 1 lx		>= 1 : 40



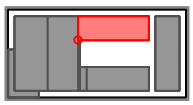
11 Landing (iii)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 6.43m

11	3.14 lx	8.82 lx	1: 2.81
	>= 1 lx		>= 1 : 40



12 Tread (vi)
Calculation field: 2.45m x 0.7m (16 x 4 pts), Height = 7.92m

12	3.36 lx	9.54 lx	1: 2.84
	>= 1 lx		>= 1 : 40



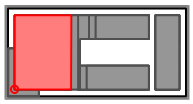
1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

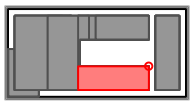
13 Level 01M
Calculation field: 1.67m x 2.19m (5 x 6 pts), Height = 7.92m

13	1.84 lx	8.65 lx	1: 4.70
	>= 1 lx		>= 1 : 40



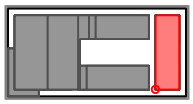
14 Tread (vii)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 9.41m

14	3.49 lx	9.87 lx	1: 2.83
	>= 1 lx		>= 1 : 40



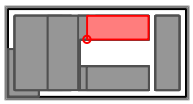
15 Landing (iv)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 9.41m

15	3.30 lx	9.06 lx	1: 2.75
	>= 1 lx		>= 1 : 40



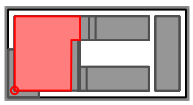
16 Tread (viii)
Calculation field: 2.14m x 0.7m (14 x 4 pts), Height = 10.74m

16	3.49 lx	9.80 lx	1: 2.81
	>= 1 lx		>= 1 : 40



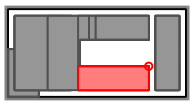
17 Level 02
Calculation field: 1.93m x 2.19m (6 x 6 pts), Height = 10.74m

17	4.70 lx	65.18 lx	1: 13.86
	>= 1 lx		>= 1 : 40



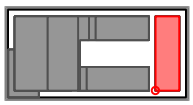
18 Tread (ix)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 12.24m

18	4.79 lx	14.19 lx	1: 2.96
	>= 1 lx		>= 1 : 40



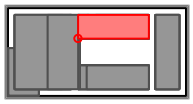
19 Landing (v)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 12.24m

19	3.31 lx	9.12 lx	1: 2.76
	>= 1 lx		>= 1 : 40



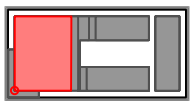
20 Tread (x)
Calculation field: 2.45m x 0.7m (16 x 4 pts), Height = 13.73m

20	3.50 lx	9.80 lx	1: 2.80
	>= 1 lx		>= 1 : 40



21 Level 03
Calculation field: 1.67m x 2.19m (5 x 6 pts), Height = 13.73m

21	4.72 lx	65.09 lx	1: 13.78
	>= 1 lx		>= 1 : 40



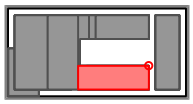
1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

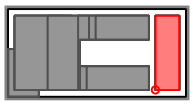
22 Tread (xi)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 15.24m

22	4.79 lx	14.19 lx	1: 2.96
	>= 1 lx		>= 1 : 40



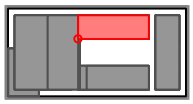
23 Landing (vi)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 15.24m

23	3.31 lx	9.12 lx	1: 2.76
	>= 1 lx		>= 1 : 40



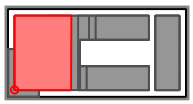
24 Tread (xii)
Calculation field: 2.45m x 0.7m (16 x 4 pts), Height = 16.73m

24	3.50 lx	9.80 lx	1: 2.80
	>= 1 lx		>= 1 : 40



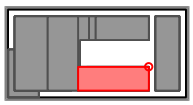
25 Level 04
Calculation field: 1.67m x 2.19m (5 x 6 pts), Height = 16.73m

25	4.72 lx	65.09 lx	1: 13.78
	>= 1 lx		>= 1 : 40



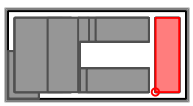
26 Tread (xiii)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 18.24m

26	4.79 lx	14.19 lx	1: 2.96
	>= 1 lx		>= 1 : 40



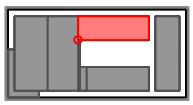
27 Landing (vii)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 18.24m

27	3.31 lx	9.12 lx	1: 2.76
	>= 1 lx		>= 1 : 40



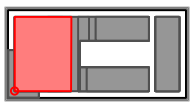
28 Tread (xiv)
Calculation field: 2.45m x 0.7m (16 x 4 pts), Height = 19.73m

28	3.50 lx	9.80 lx	1: 2.80
	>= 1 lx		>= 1 : 40



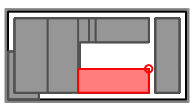
29 Level 05
Calculation field: 1.67m x 2.19m (5 x 6 pts), Height = 19.73m

29	4.72 lx	65.09 lx	1: 13.78
	>= 1 lx		>= 1 : 40



30 Tread (xv)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 21.24m

30	4.79 lx	14.19 lx	1: 2.96
	>= 1 lx		>= 1 : 40



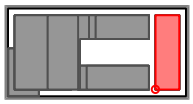
1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

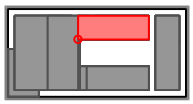
31 Landing (viii)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 21.24m

31	3.31 lx	9.12 lx	1: 2.76
	>= 1 lx		>= 1 : 40



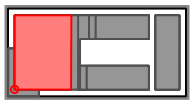
32 Tread (xvi)
Calculation field: 2.45m x 0.7m (16 x 4 pts), Height = 22.73m

32	3.50 lx	9.80 lx	1: 2.80
	>= 1 lx		>= 1 : 40



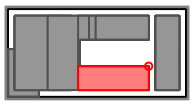
33 Level 06
Calculation field: 1.67m x 2.19m (5 x 6 pts), Height = 22.73m

33	4.72 lx	65.09 lx	1: 13.78
	>= 1 lx		>= 1 : 40



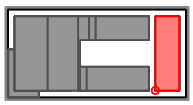
34 Tread (xvii)
Calculation field: 2.43m x 0.7m (16 x 4 pts), Height = 24.24m

34	4.79 lx	14.19 lx	1: 2.96
	>= 1 lx		>= 1 : 40



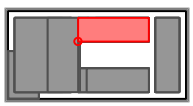
35 Landing (ix)
Calculation field: 0.7m x 2.19m (4 x 14 pts), Height = 24.24m

35	3.47 lx	9.12 lx	1: 2.63
	>= 1 lx		>= 1 : 40



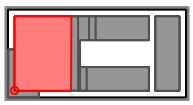
36 Tread (xviii)
Calculation field: 2.45m x 0.7m (16 x 4 pts), Height = 25.73m

36	3.64 lx	9.93 lx	1: 2.73
	>= 1 lx		>= 1 : 40



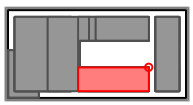
37 Level 07
Calculation field: 1.67m x 2.19m (5 x 6 pts), Height = 25.73m

37	4.76 lx	65.09 lx	1: 13.68
	>= 1 lx		>= 1 : 40



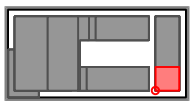
38 Tread (xix)
Calculation field: 2.37m x 0.7m (15 x 4 pts), Height = 27.02m

38	4.88 lx	12.96 lx	1: 2.65
	>= 1 lx		>= 1 : 40



39 Landing (x)
Calculation field: 0.7m x 0.7m (4 x 4 pts), Height = 27.02m

39	3.44 lx	8.09 lx	1: 2.35
	>= 1 lx		>= 1 : 40



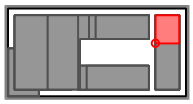
1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

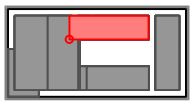
40 Landing (xi)
Calculation field: 0.7m x 0.83m (4 x 5 pts), Height = 27.30m

40	3.49 lx	9.55 lx	1: 2.73
	>= 1 lx		>= 1 : 40



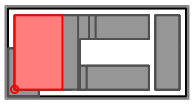
41 Tread (xx)
Calculation field: 2.66m x 0.7m (17 x 4 pts), Height = 28.73m

41	3.21 lx	10.00 lx	1: 3.12
	>= 1 lx		>= 1 : 40



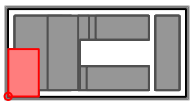
42 Level 08
Calculation field: 1.41m x 2.19m (4 x 6 pts), Height = 28.73m

42	1.80 lx	8.20 lx	1: 4.56
	>= 1 lx		>= 1 : 40



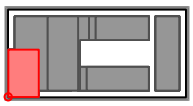
1 Level 01 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 4.94m

43	13.68 lx	65.82 lx	1: 4.81
	>= 5 lx		>= 1 : 40



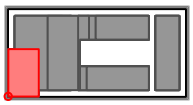
2 Level 02 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 10.74m

44	13.65 lx	65.30 lx	1: 4.78
	>= 5 lx		>= 1 : 40



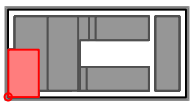
3 Level 03 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 13.74m

45	13.63 lx	65.28 lx	1: 4.79
	>= 5 lx		>= 1 : 40



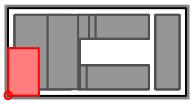
4 Level 04 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 16.74m

46	13.63 lx	65.28 lx	1: 4.79
	>= 5 lx		>= 1 : 40



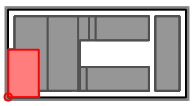
5 Level 05 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 19.74m

47	13.63 lx	65.28 lx	1: 4.79
	>= 5 lx		>= 1 : 40



6 Level 06 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 22.74m

48	13.63 lx	65.28 lx	1: 4.79
	>= 5 lx		>= 1 : 40



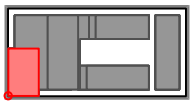
1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

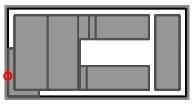
7 Level 07 Refuge
Calculation field: 0.9m x 1.4m (4 x 6 pts), Height = 25.74m

49	13.63 lx	65.28 lx	1: 4.79
	>= 5 lx		>= 1 : 40



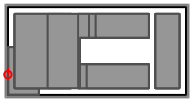
Places to highlight

No.	Emin [lx]	Surface Emax [lx]	
1 Level 01 Refuge Panel			
Calculation field: 0.2m x 0.3m (2 x 3 pts)			
1	16.58 lx	20.80 lx	
	>= 5 lx		



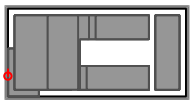
2 Level 02 Refuge Panel
Calculation field: 0.2m x 0.3m (2 x 3 pts)

2	16.51 lx	20.71 lx	
	>= 5 lx		



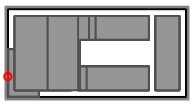
3 Level 03 Refuge Panel
Calculation field: 0.2m x 0.3m (2 x 3 pts)

3	16.50 lx	20.70 lx	
	>= 5 lx		



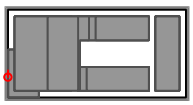
4 Level 04 Refuge Panel
Calculation field: 0.2m x 0.3m (2 x 3 pts)

4	16.50 lx	20.70 lx	
	>= 5 lx		



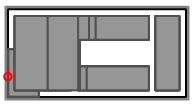
5 Level 05 Refuge Panel
Calculation field: 0.2m x 0.3m (2 x 3 pts)

5	16.50 lx	20.70 lx	
	>= 5 lx		



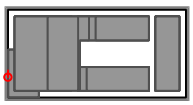
6 Level 06 Refuge Panel
Calculation field: 0.2m x 0.3m (2 x 3 pts)

6	16.50 lx	20.70 lx	
	>= 5 lx		



7 Level 07 Refuge Panel
Calculation field: 0.2m x 0.3m (2 x 3 pts)

7	16.51 lx	20.71 lx	
	>= 5 lx		



1 Stair Core 1

1.2 Summary, Stair Core 1

1.2.1.1 Result overview (emergency lighting)

Type No.\Make

Thorn

2 42E x



Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

Tridonic

4 7E x

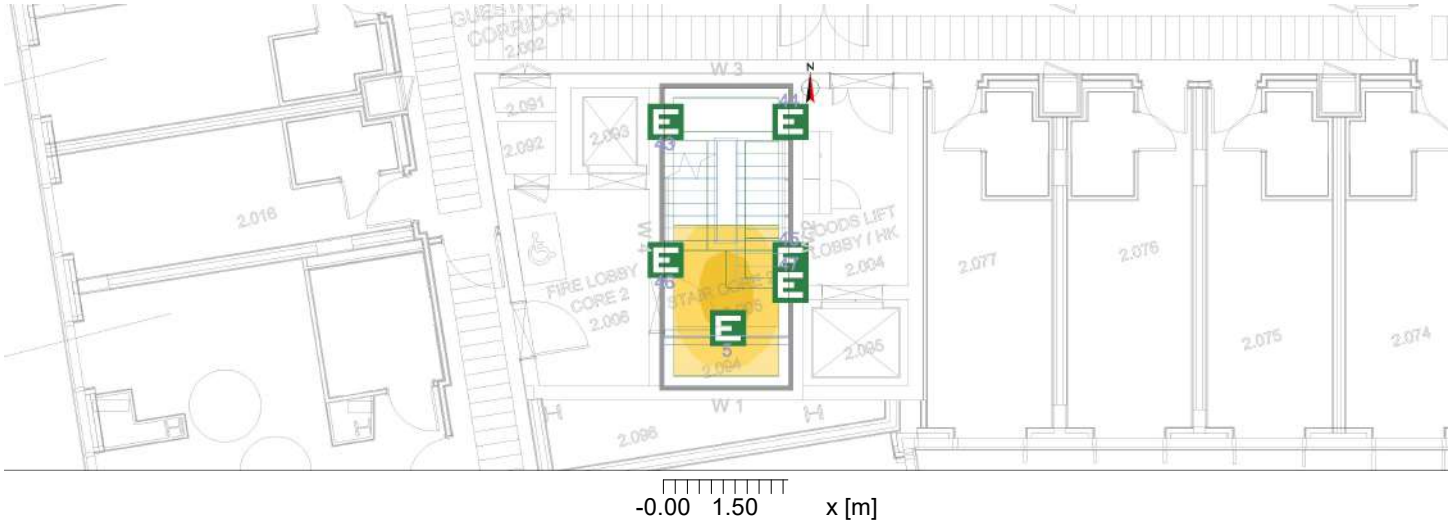


Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Surface)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

2 Stair Core 2

2.1 Summary, Stair Core 2

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	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

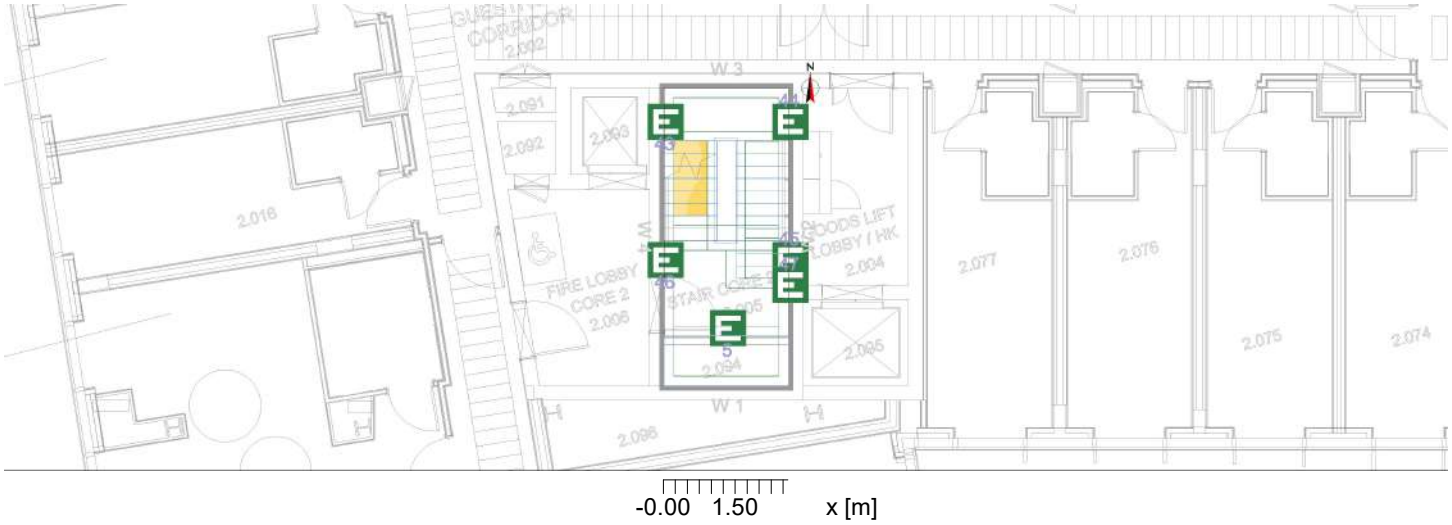
Average illuminance	$\bar{E}_m$	178 lx
Minimum illuminance	E_{min}	128 lx
Maximum illuminance	E_{max}	222 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.39 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.73 (0.58)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.2 Result overview, Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

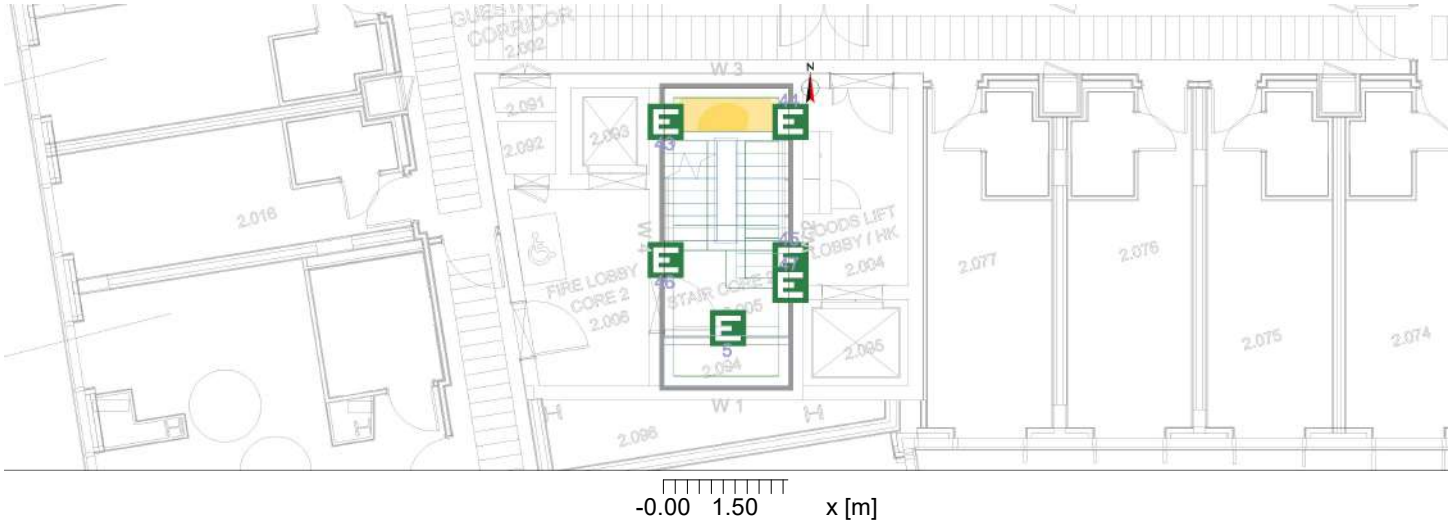
Average illuminance	$\bar{E}_m$	144 lx
Minimum illuminance	E_{min}	116 lx
Maximum illuminance	E_{max}	173 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.49 (0.67)

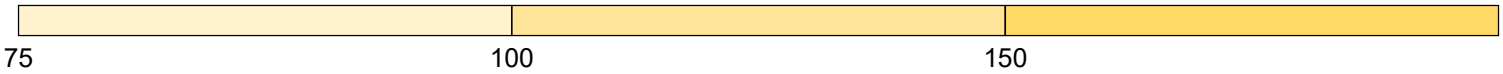
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.3 Result overview, Landing (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.15 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

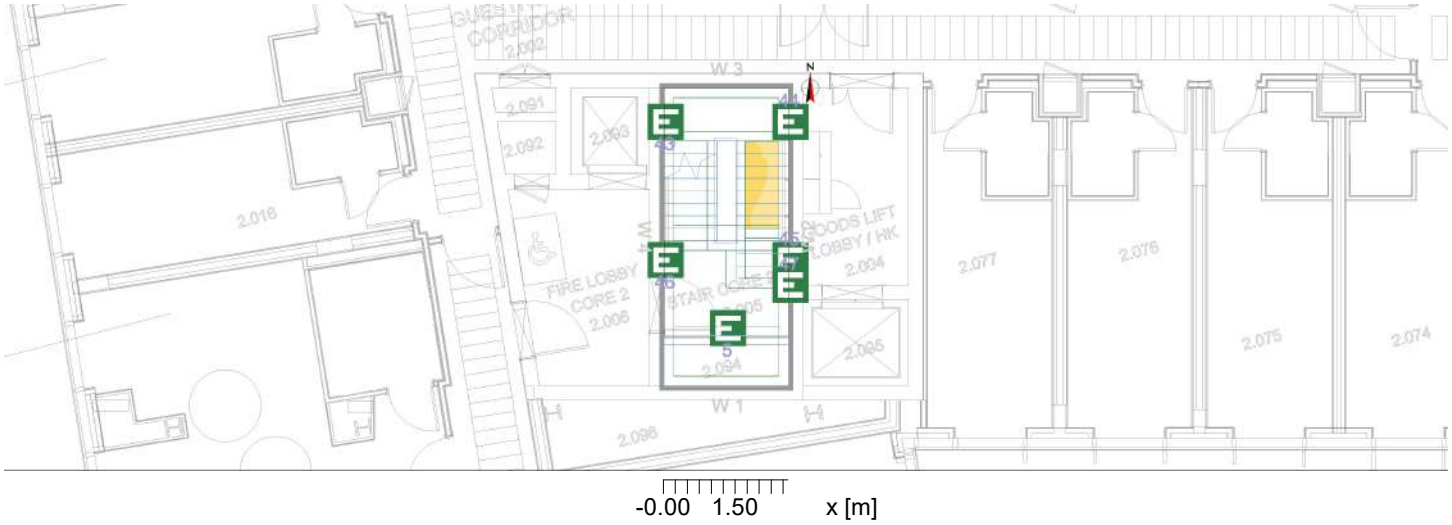
Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	166 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.49 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.8 (0.56)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.4 Result overview, Tread (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

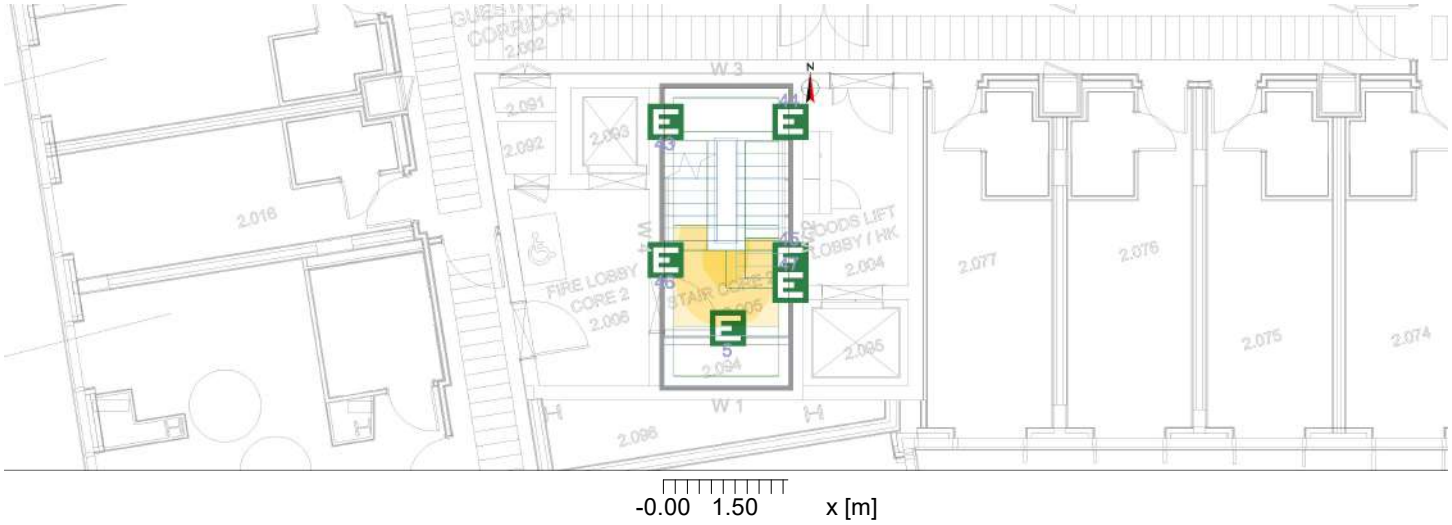
Average illuminance	$\bar{E}_m$	145 lx
Minimum illuminance	E_{min}	114 lx
Maximum illuminance	E_{max}	177 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.64)

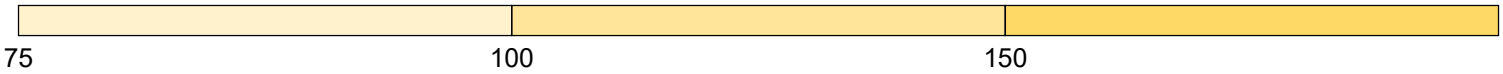
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.5 Result overview, Level 00M





General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

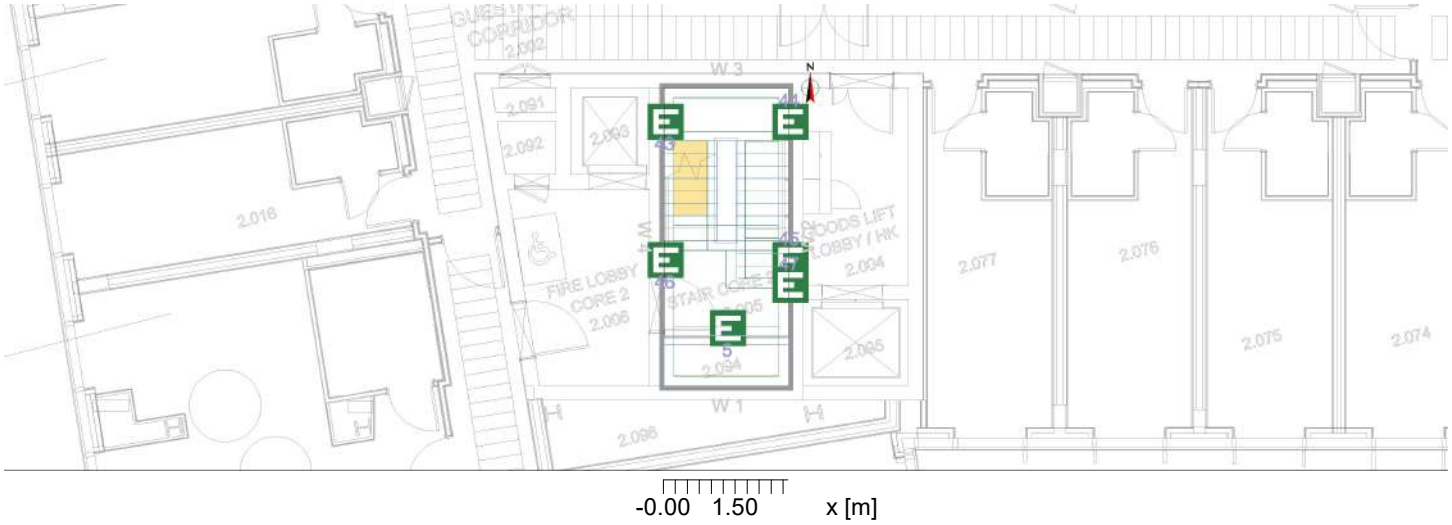
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	85 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.49 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.91 (0.52)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.6 Result overview, Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

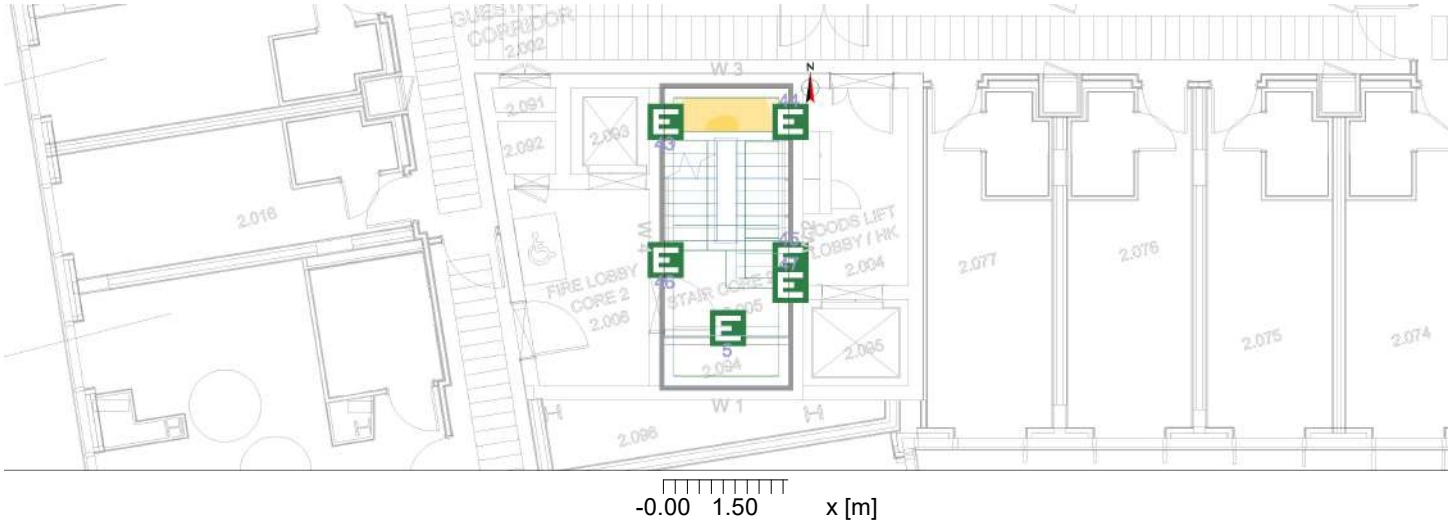
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	108 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.18 (0.85)
Diversity U_d	E_{min}/E_{max}	1:1.35 (0.74)

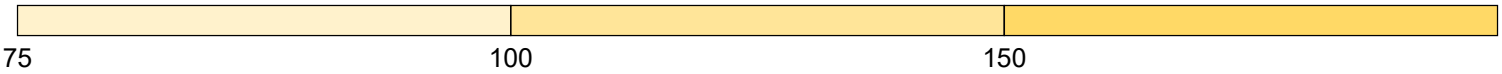
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.7 Result overview, Landing (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.62 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

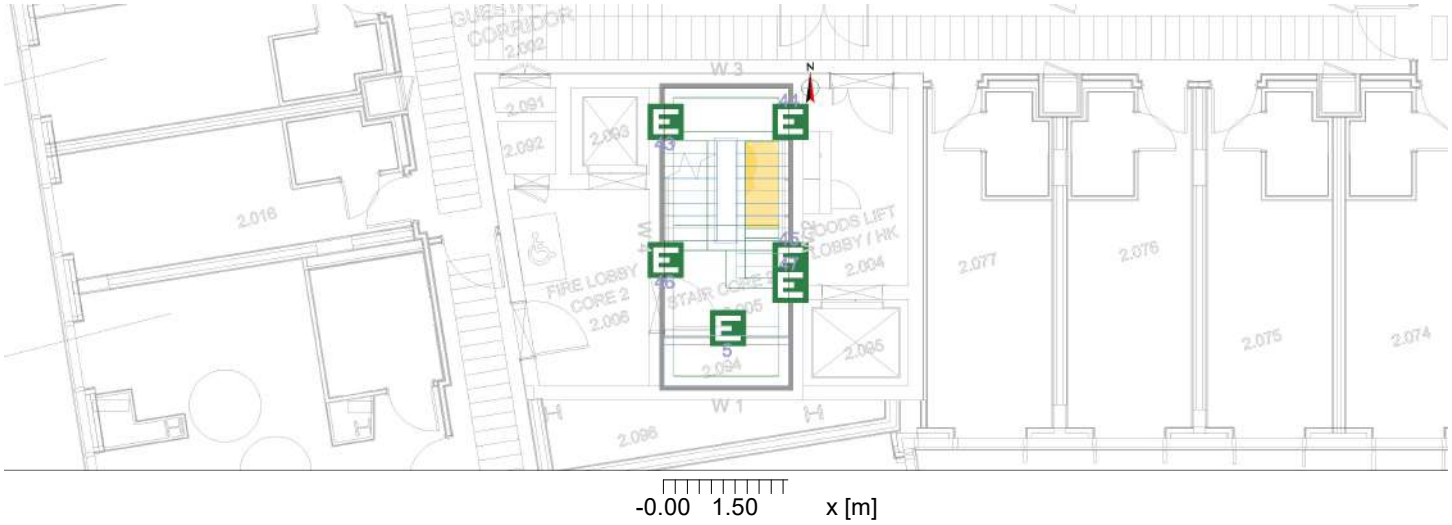
Average illuminance	$\bar{E}_m$	128 lx
Minimum illuminance	E_{min}	84 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.51 (0.66)
Diversity U_d	E_{min}/E_{max}	1:1.83 (0.55)

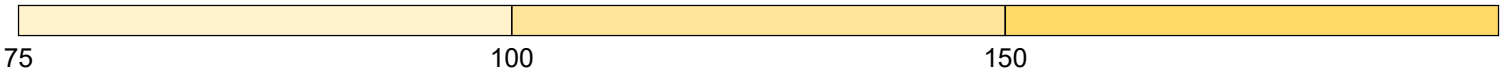
Type No.\Make

2 47E x **Thorn**
Order No. :
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.8 Result overview, Tread (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

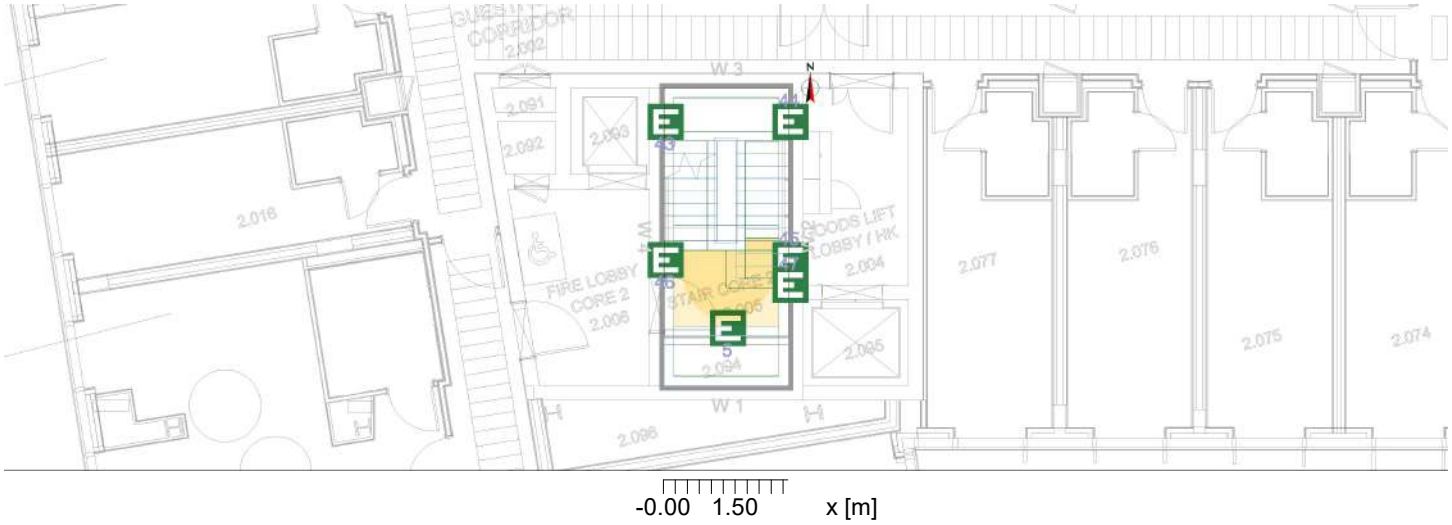
Average illuminance	$\bar{E}_m$	133 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.9 Result overview, Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

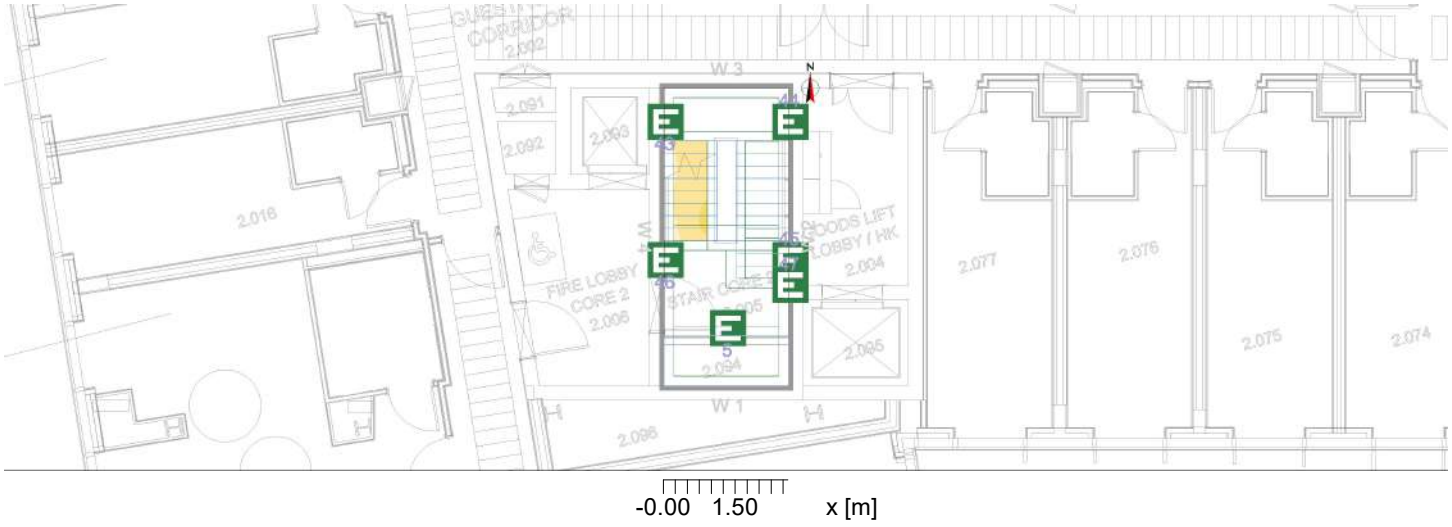
Average illuminance	$\bar{E}_m$	114 lx
Minimum illuminance	E_{min}	76 lx
Maximum illuminance	E_{max}	150 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.5 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.97 (0.51)

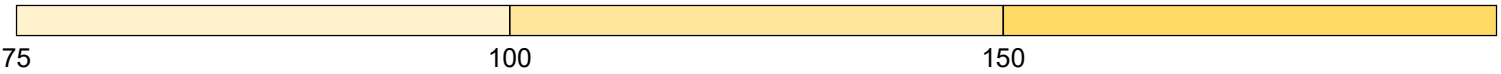
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.10 Result overview, Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

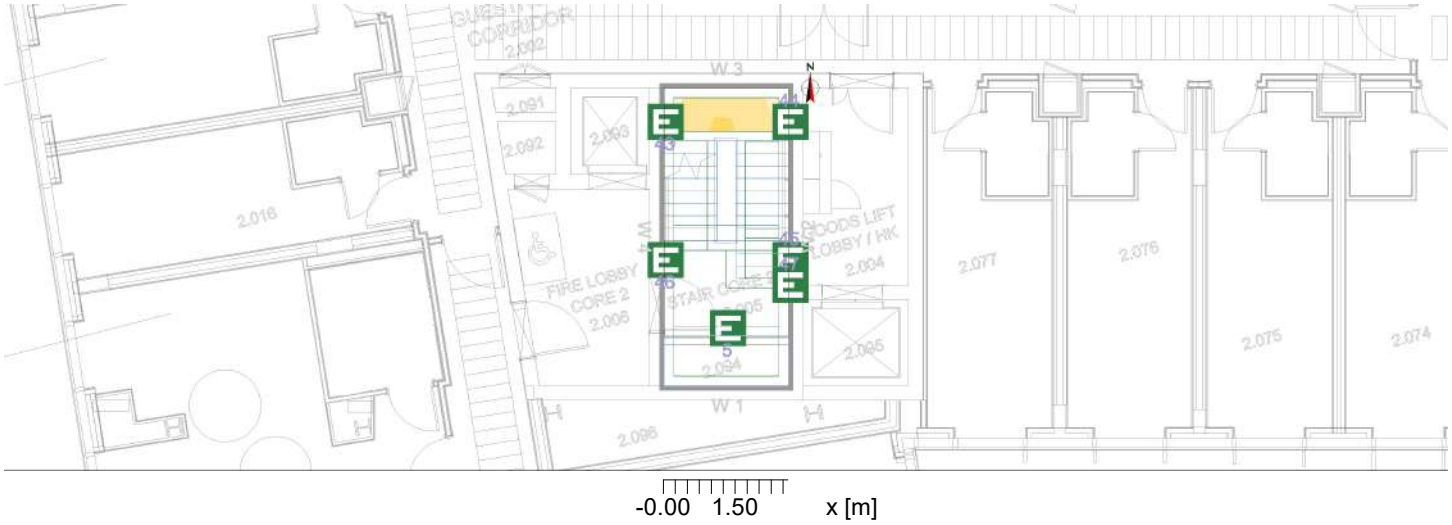
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.61)

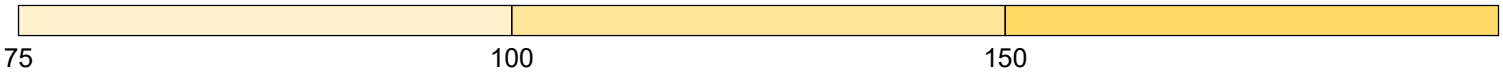
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.11 Result overview, Landing (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.42 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

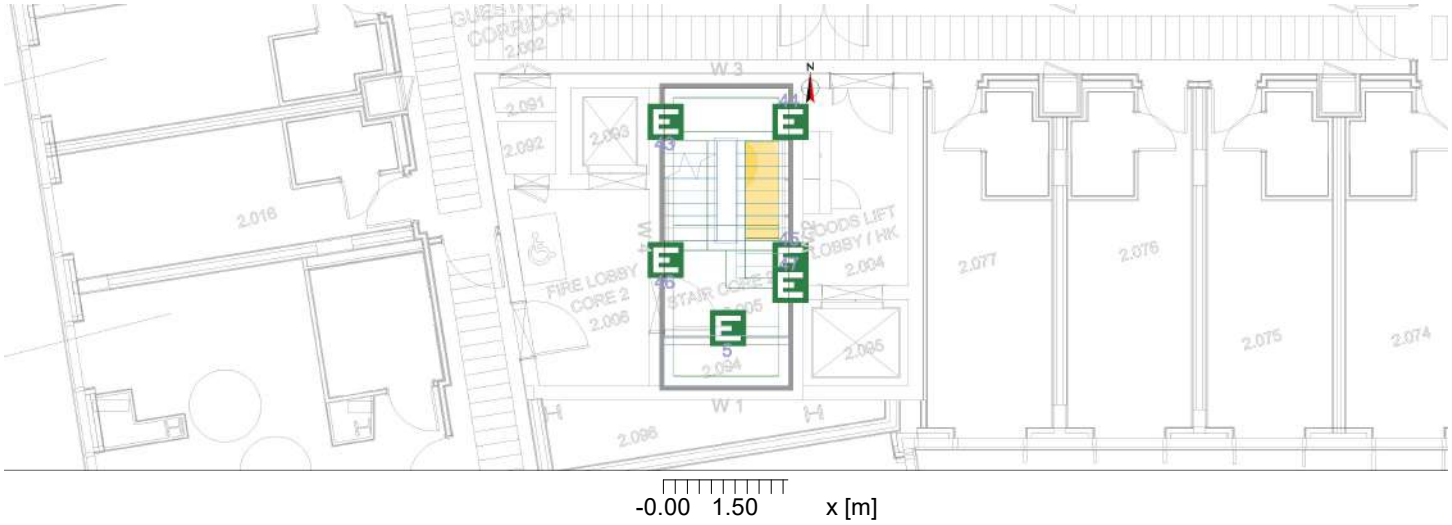
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	85 lx
Maximum illuminance	E_{max}	154 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.49 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.8 (0.56)

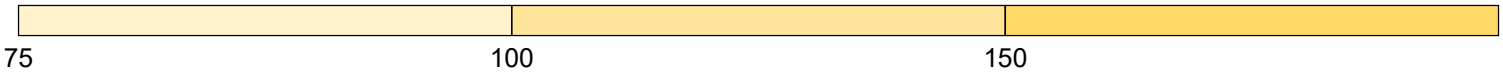
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.12 Result overview, Tread (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

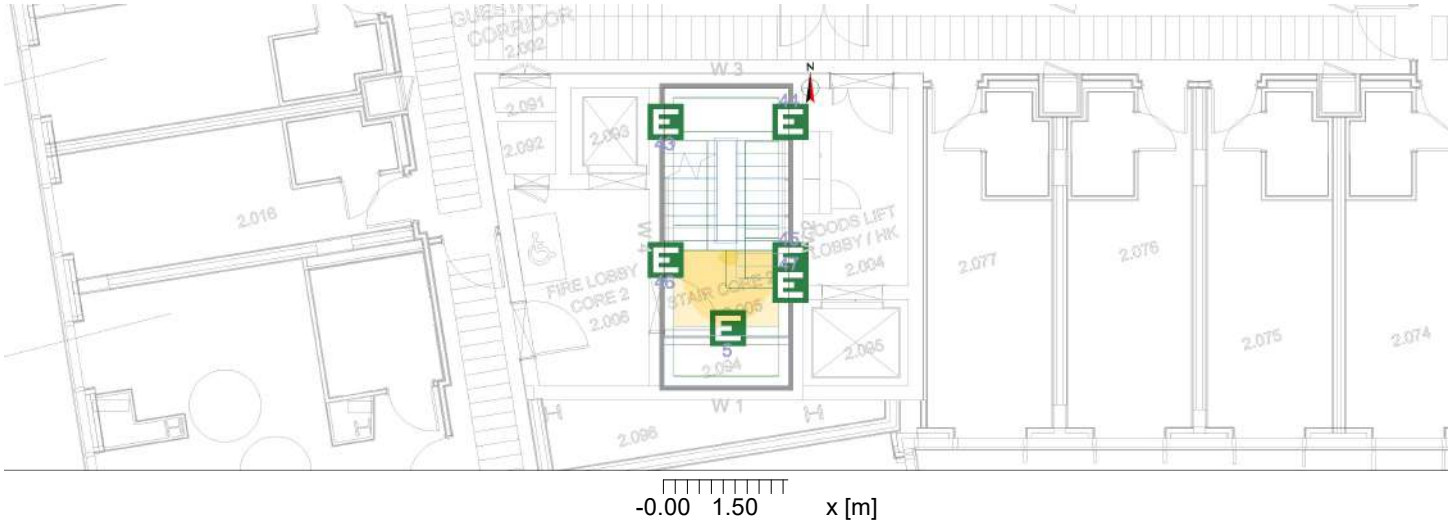
Average illuminance	$\bar{E}_m$	132 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	164 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.61)

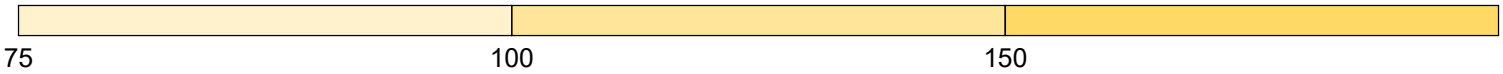
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.13 Result overview, Level 01M





General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

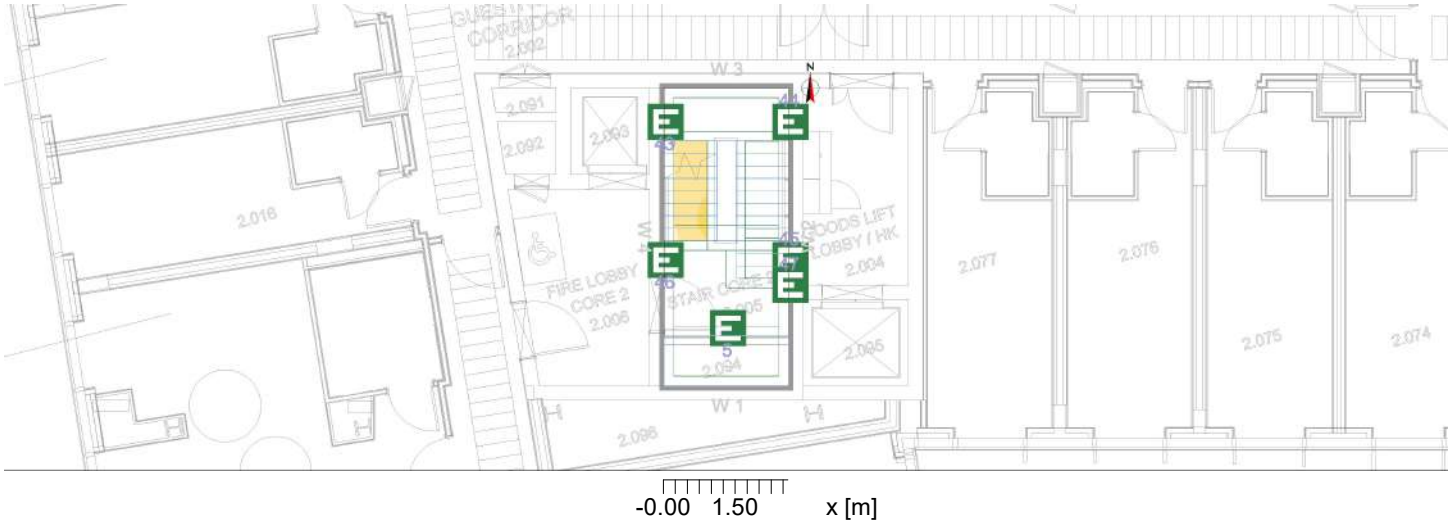
Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	77 lx
Maximum illuminance	E_{max}	153 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.52 (0.66)
Diversity U_d	E_{min}/E_{max}	1:1.99 (0.5)

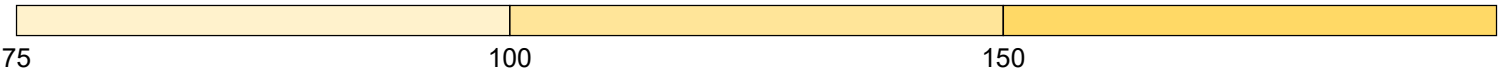
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.14 Result overview, Tread (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

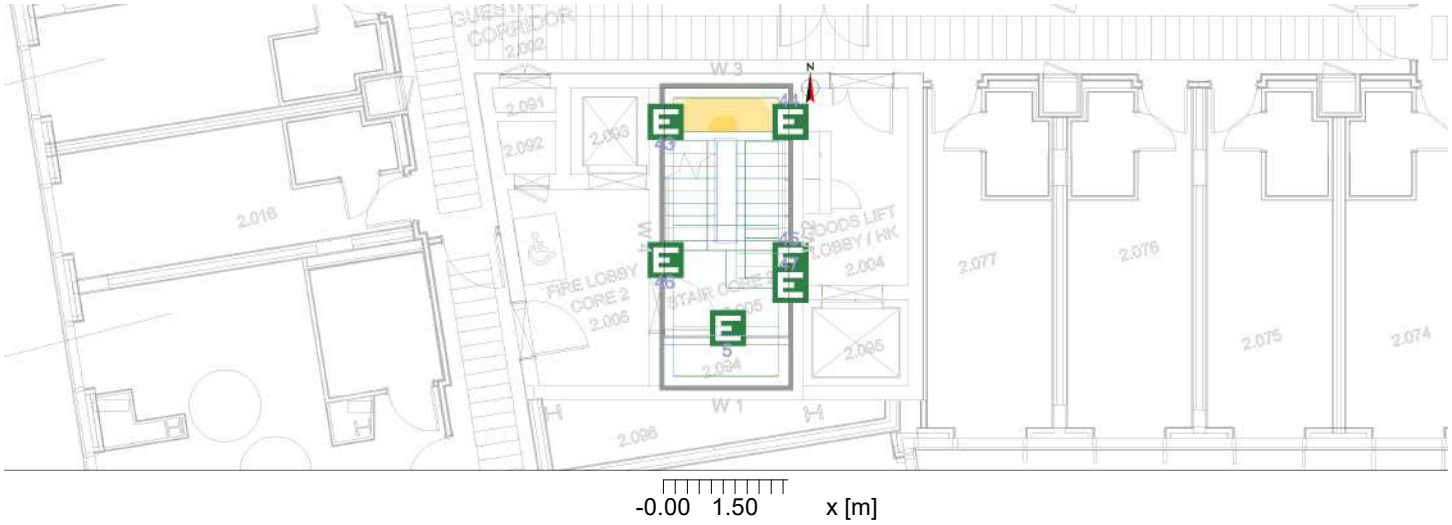
Average illuminance	$\bar{E}_m$	128 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	160 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

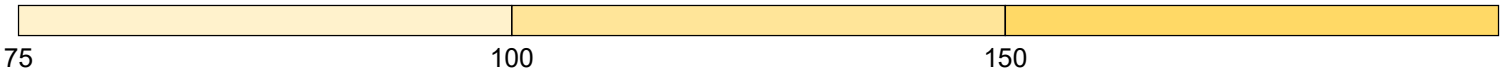
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.15 Result overview, Landing (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.41 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

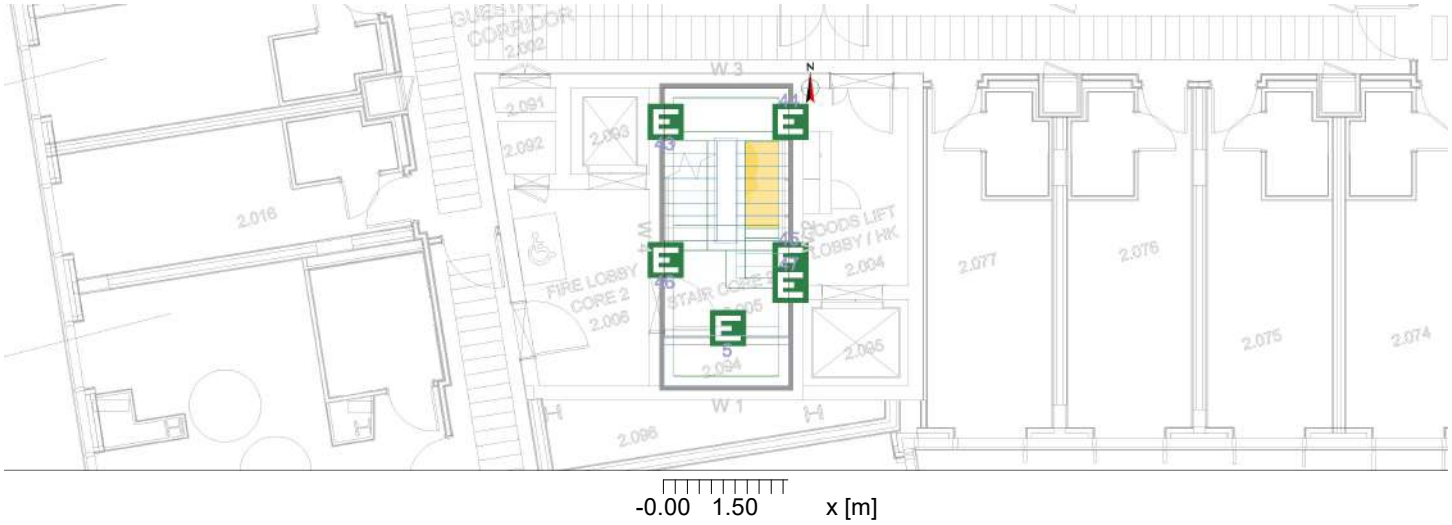
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	81 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.56 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.93 (0.52)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.16 Result overview, Tread (viii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

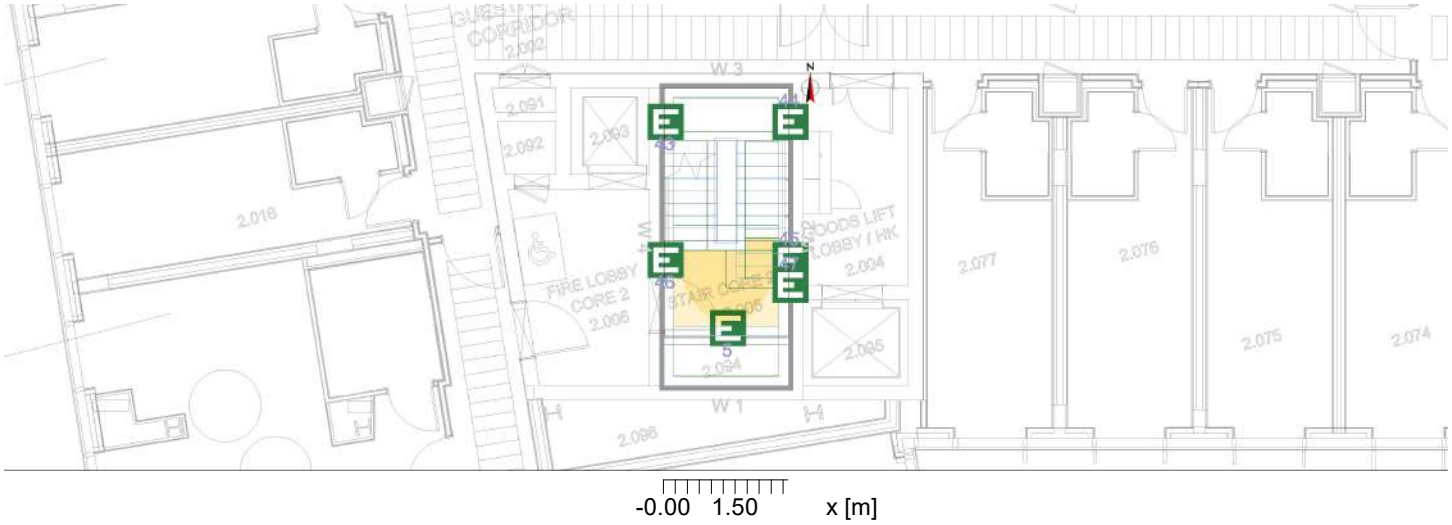
Average illuminance	$\bar{E}_m$	135 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	165 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.63 (0.61)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.17 Result overview, Level 02





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

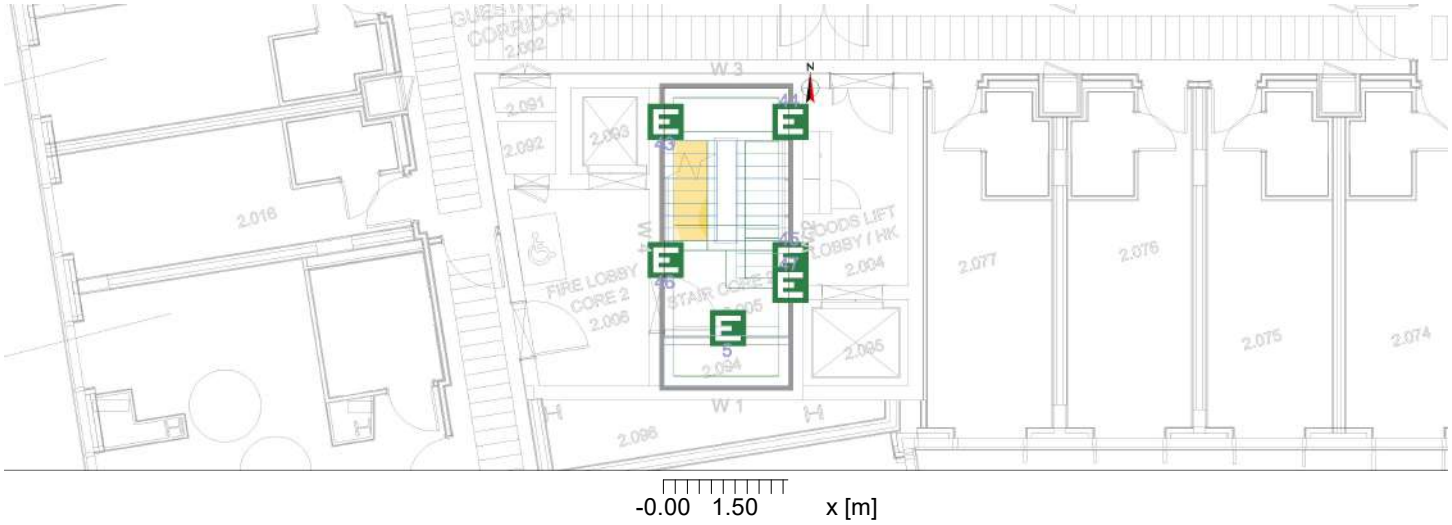
Average illuminance	$\bar{E}_m$	114 lx
Minimum illuminance	E_{min}	76 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.5 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.94 (0.51)

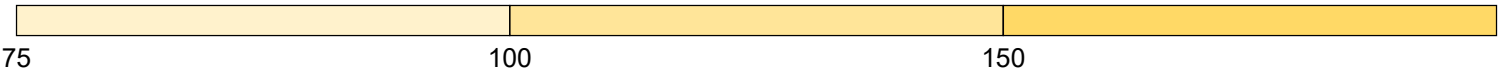
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.18 Result overview, Tread (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

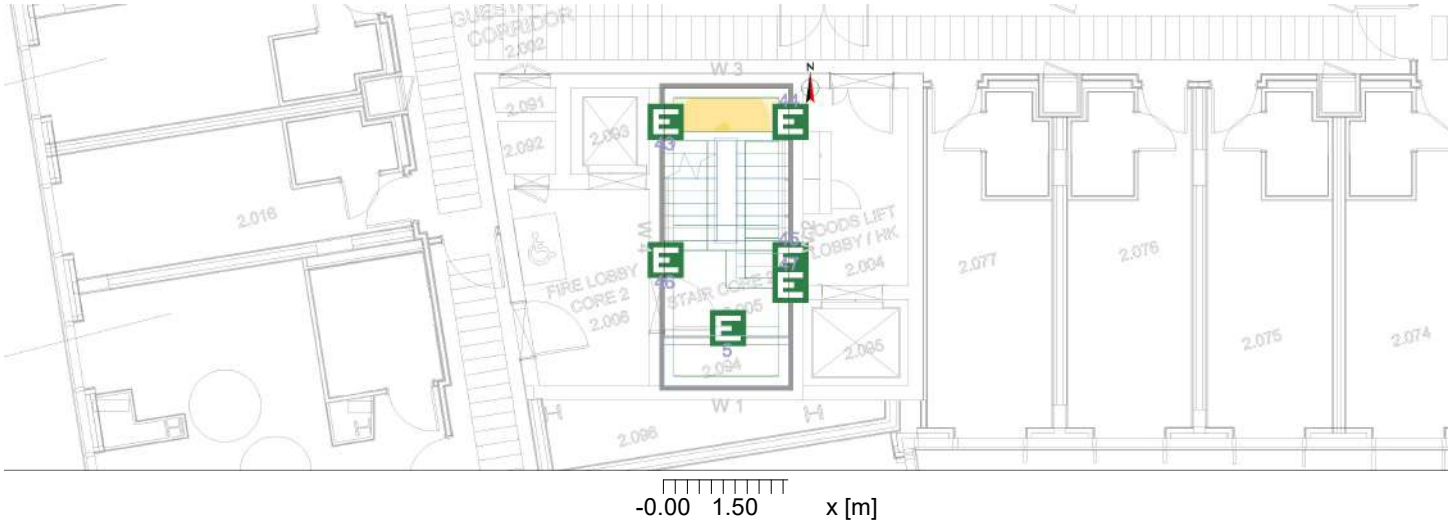
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.61)

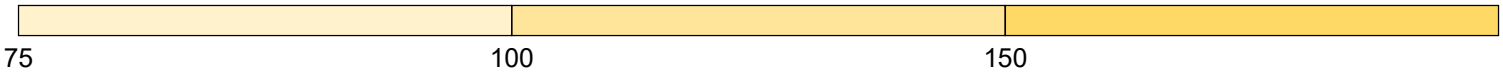
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.19 Result overview, Landing (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	12.23 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

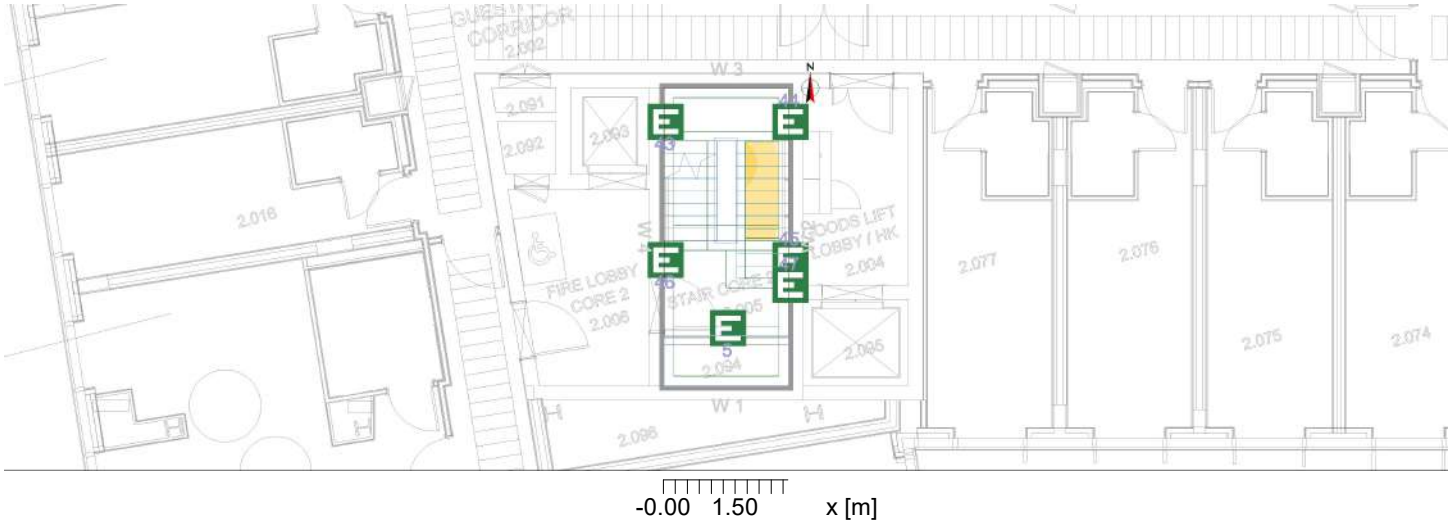
Average illuminance	$\bar{E}_m$	123 lx
Minimum illuminance	E_{min}	78 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.56 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.93 (0.52)

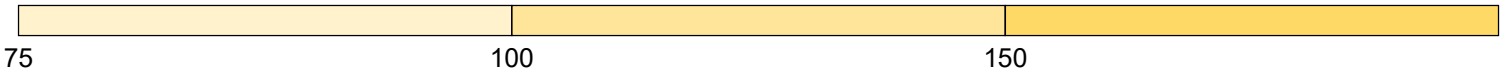
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.20 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

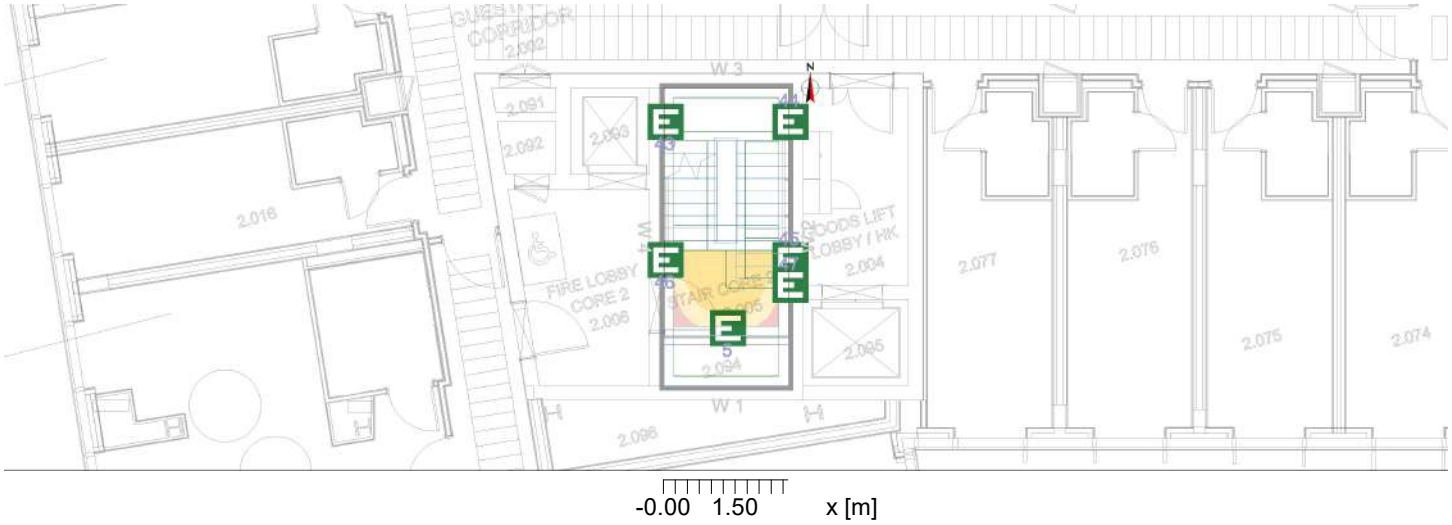
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.61)

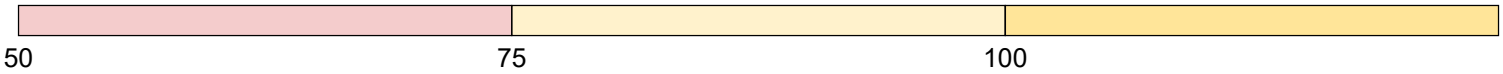
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.21 Result overview, Level 03





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

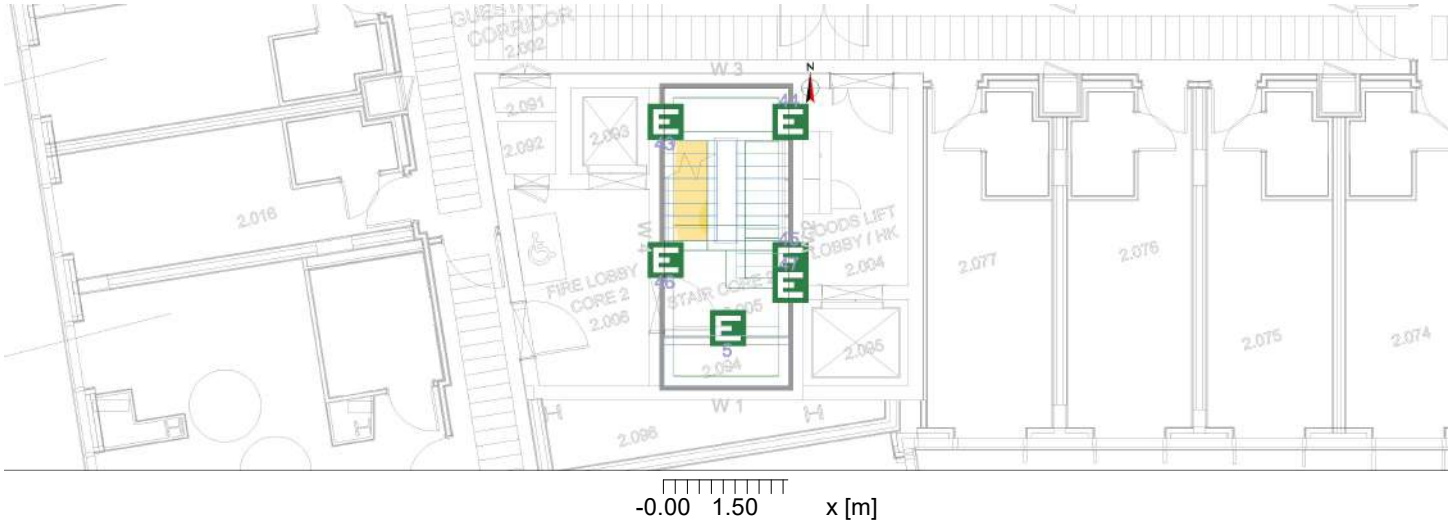
Average illuminance	$\bar{E}_m$	109 lx
Minimum illuminance	E_{min}	70 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.57 (0.64)
Diversity U_d	E_{min}/E_{max}	1:2.1 (0.48)

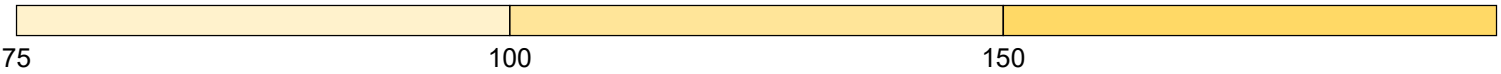
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.22 Result overview, Tread (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

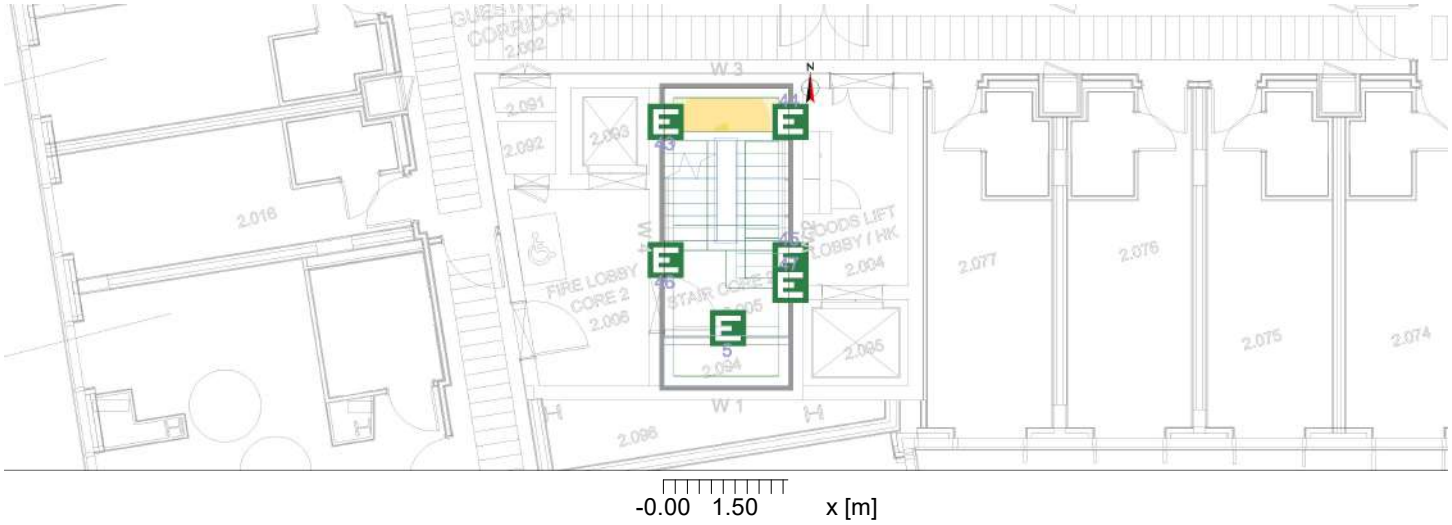
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	98 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.63)

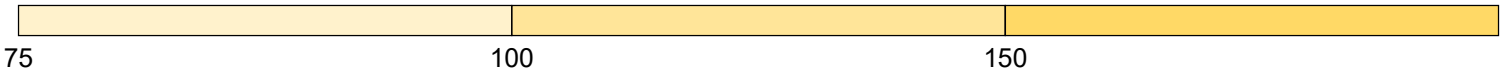
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.23 Result overview, Landing (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	15.23 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	123 lx
Minimum illuminance	E_{min}	79 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.55 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.91 (0.52)

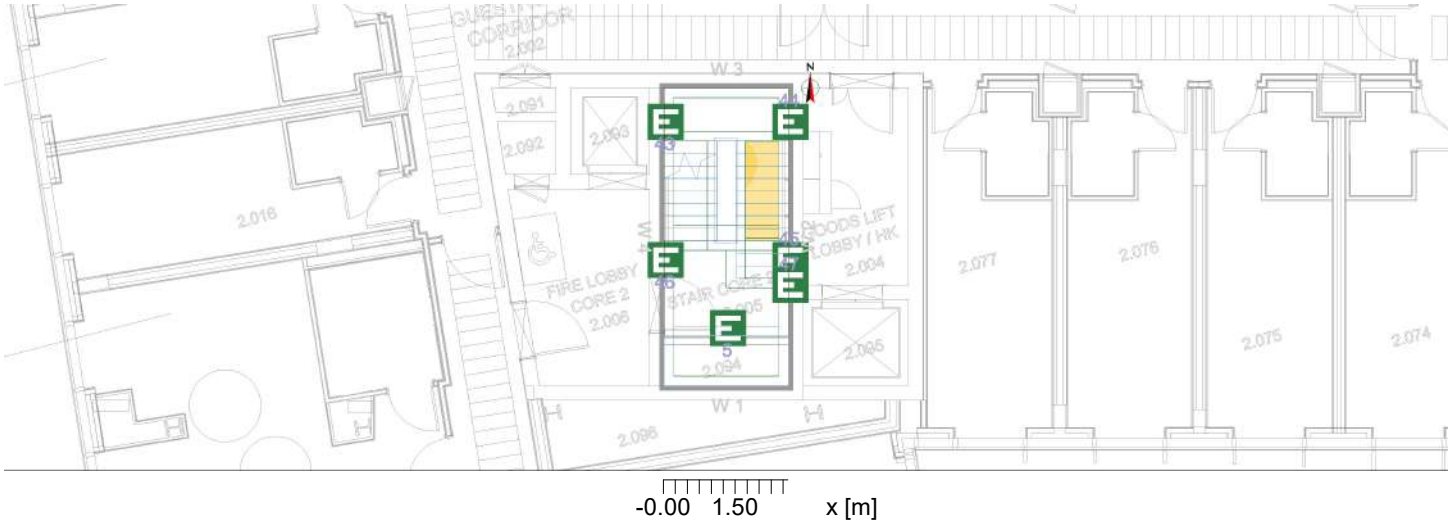
Type No.\Make

2 47E x **Thorn**

Order No.	:
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.24 Result overview, Tread (xii)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

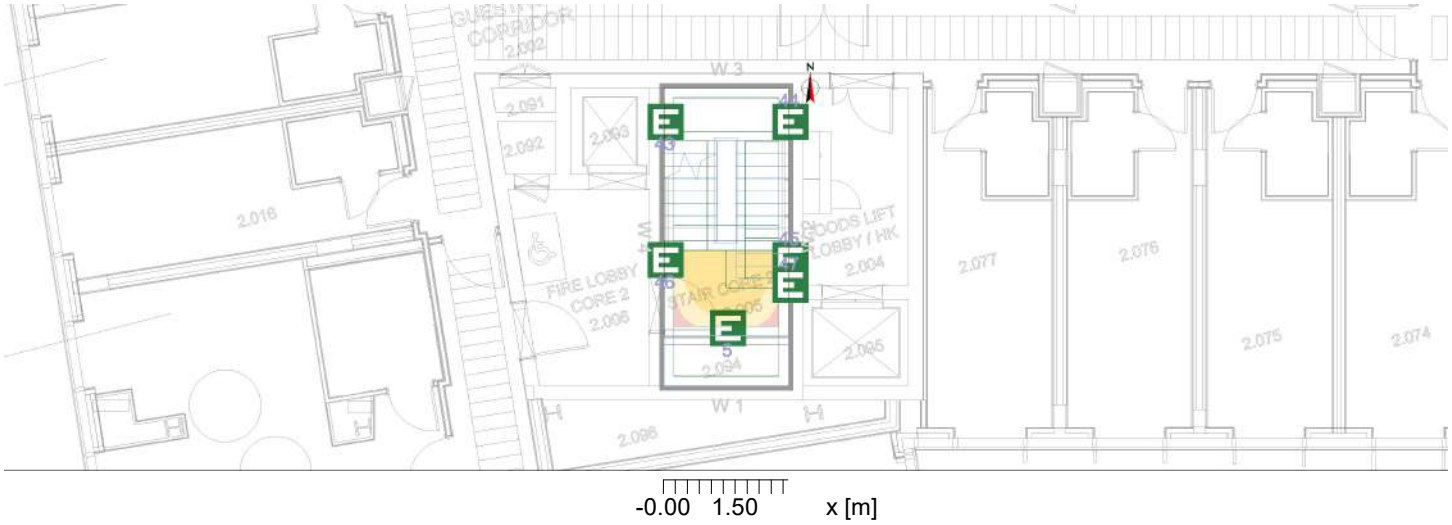
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	102 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

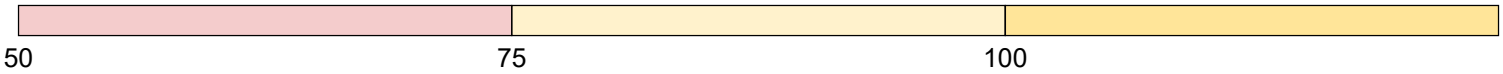
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.25 Result overview, Level 04





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

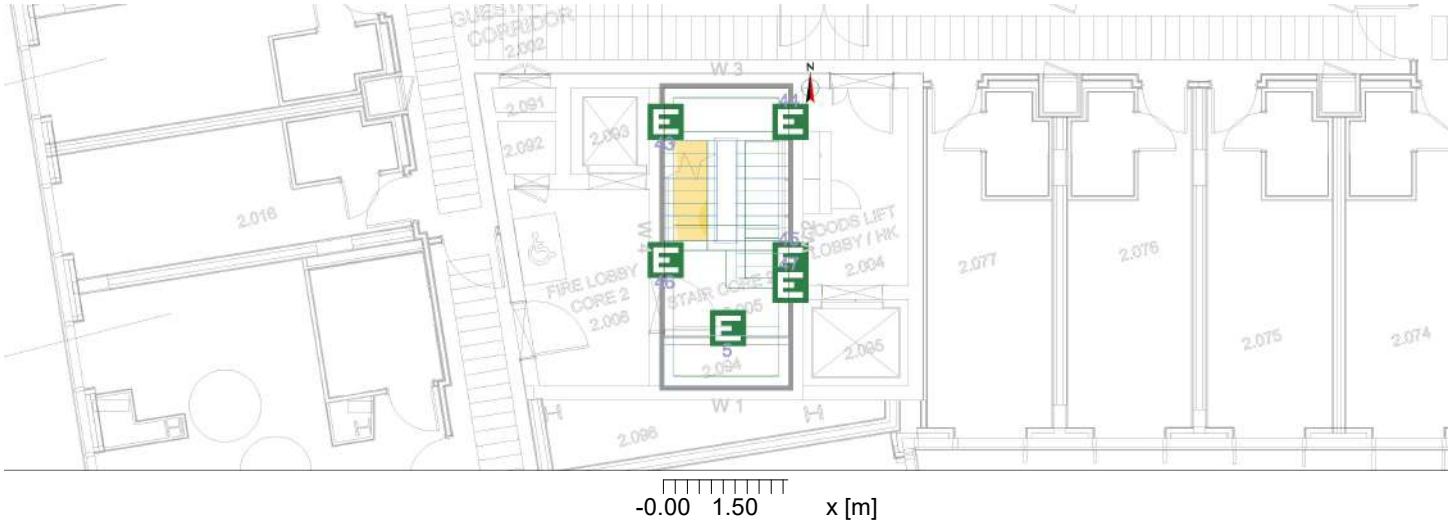
Average illuminance	$\bar{E}_m$	111 lx
Minimum illuminance	E_{min}	72 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.53 (0.65)
Diversity U_d	E_{min}/E_{max}	1:2.03 (0.49)

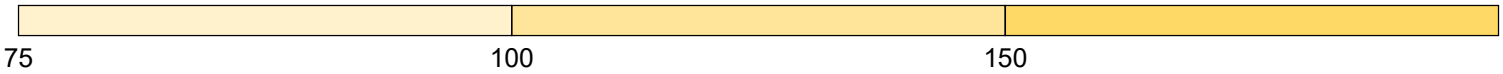
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.26 Result overview, Tread (xiii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

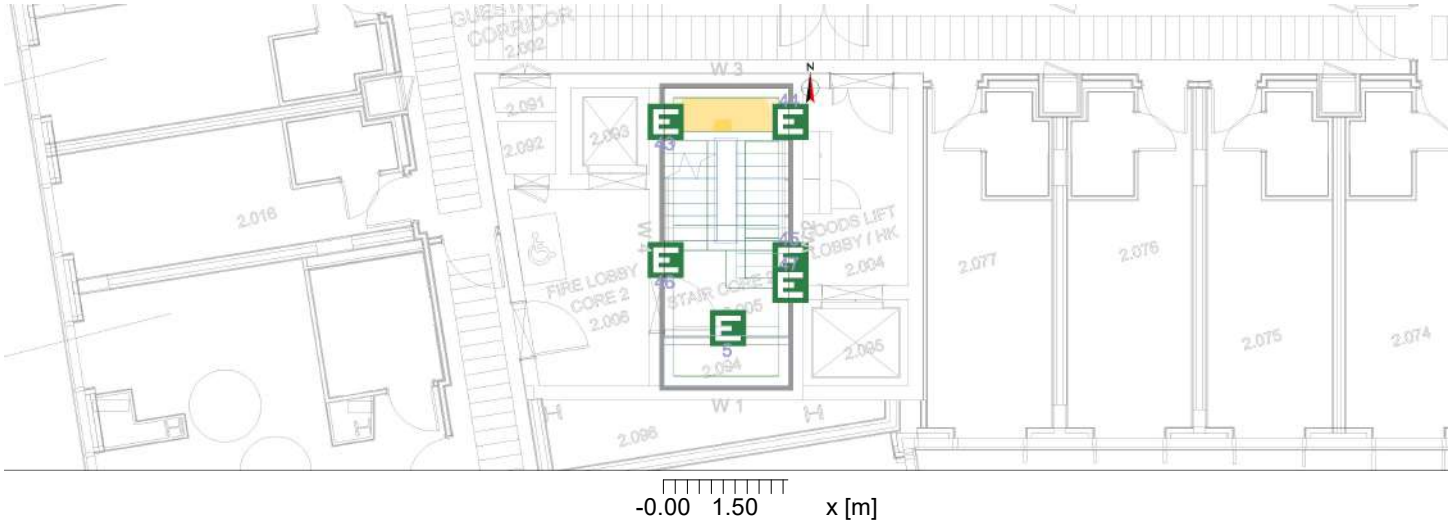
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.59 (0.63)

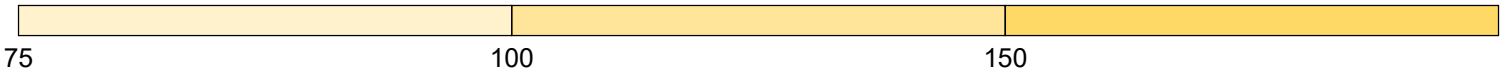
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.27 Result overview, Landing (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	18.24 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

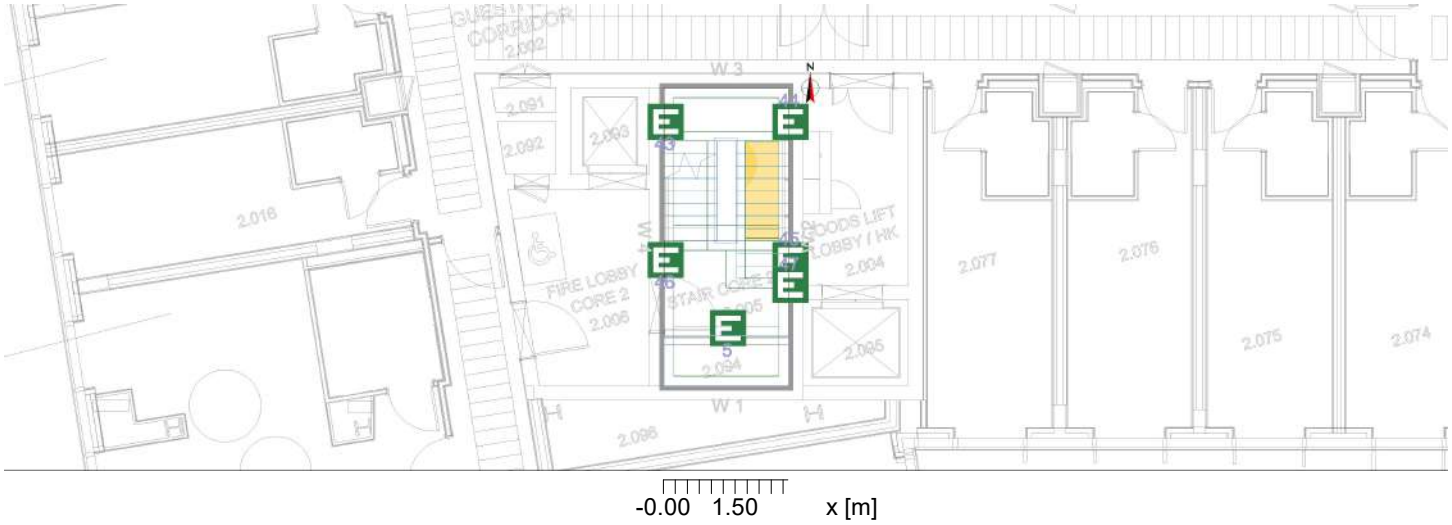
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	86 lx
Maximum illuminance	E_{max}	153 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.47 (0.68)
Diversity U_d	E_{min}/E_{max}	1:1.78 (0.56)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.28 Result overview, Tread (xiv)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

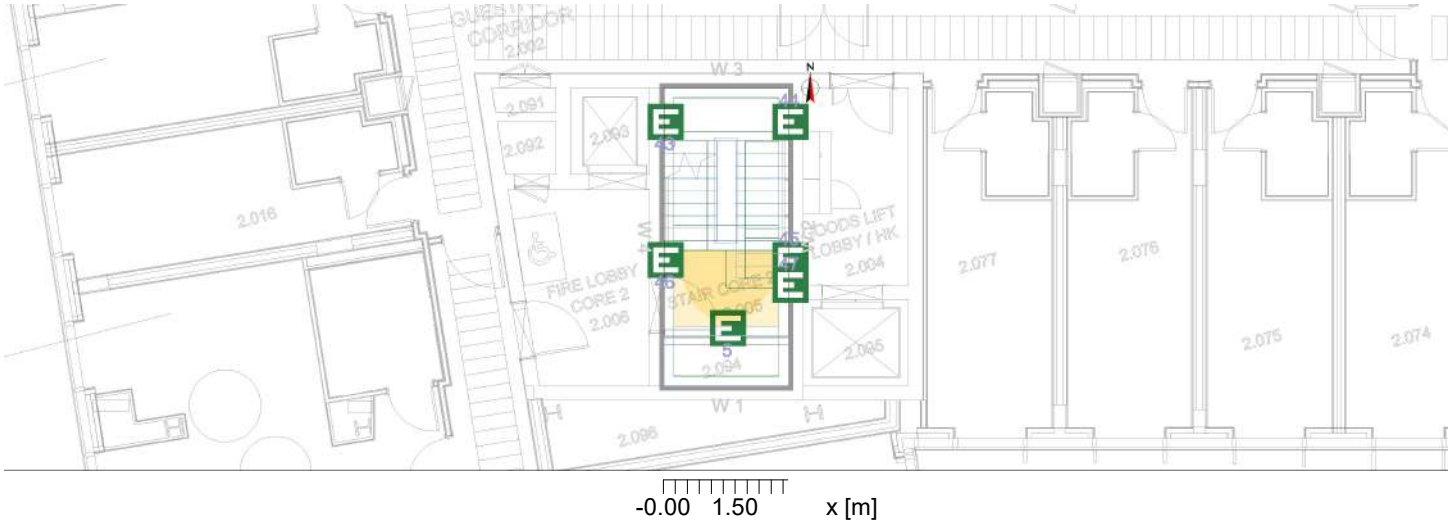
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.62)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.29 Result overview, Level 05





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

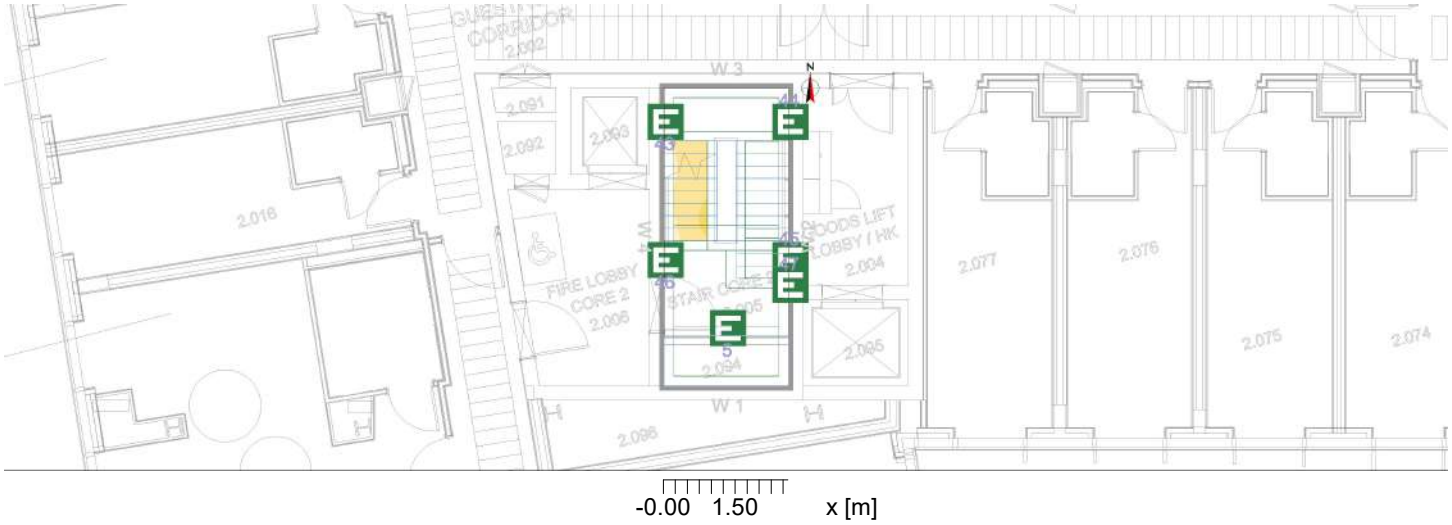
Average illuminance	$\bar{E}_m$	114 lx
Minimum illuminance	E_{min}	77 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.48 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.94 (0.52)

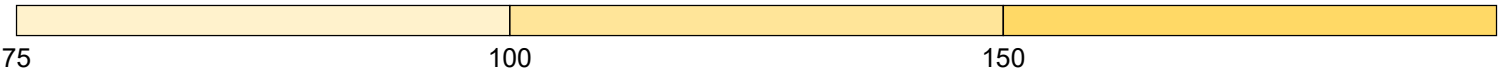
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.30 Result overview, Tread (xv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

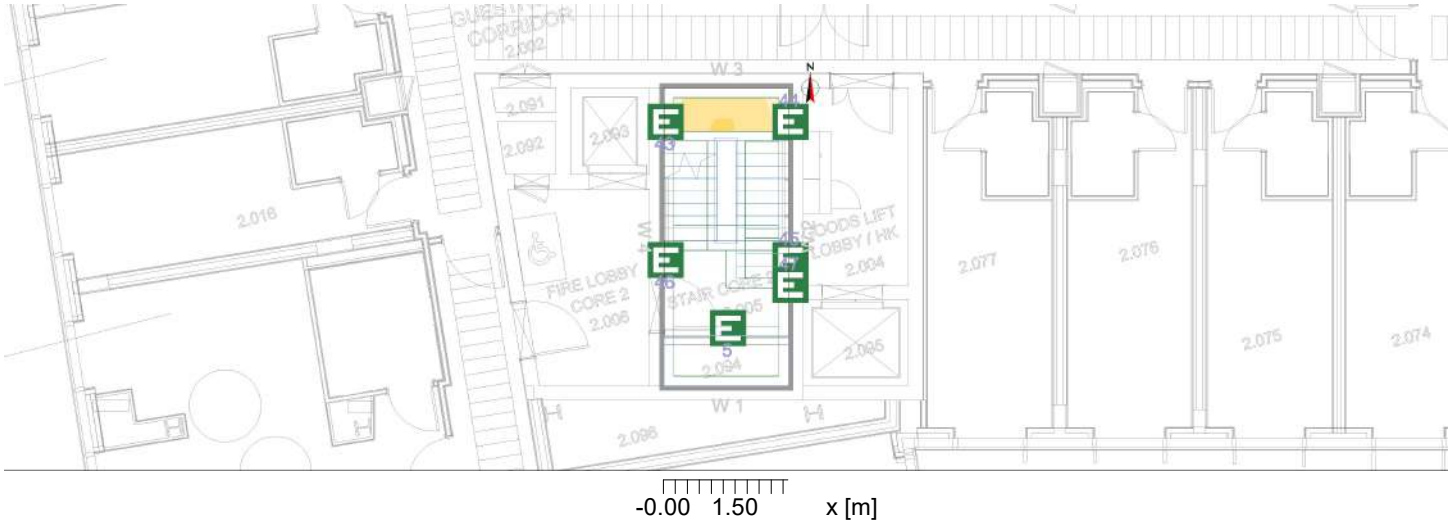
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

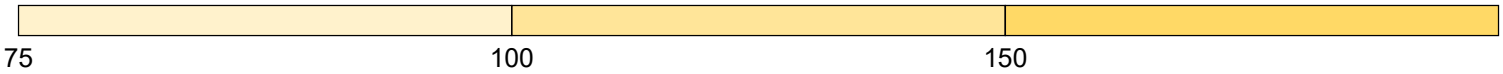
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.31 Result overview, Landing (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	21.23 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

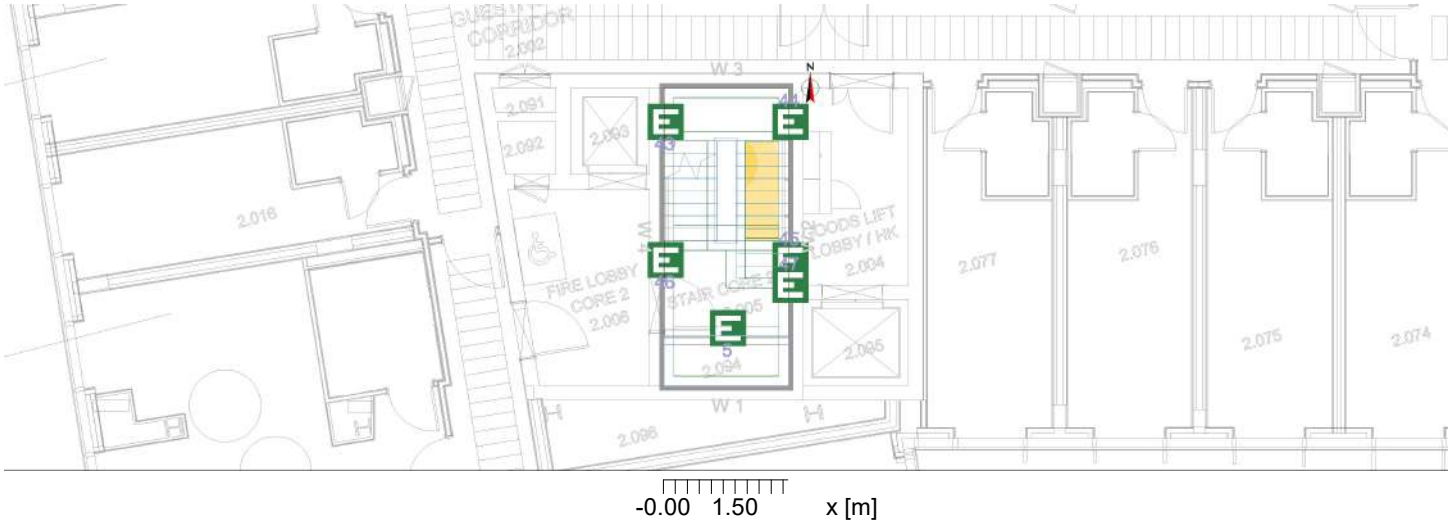
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	85 lx
Maximum illuminance	E_{max}	154 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.49 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.81 (0.55)

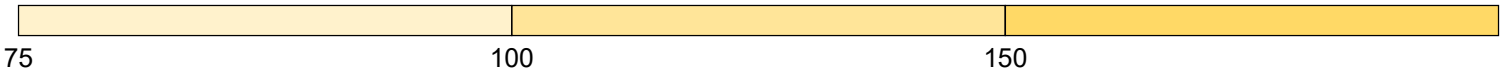
Type No.\Make

2 47E x **Thorn**
Order No. :
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.32 Result overview, Tread (xvi)





General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

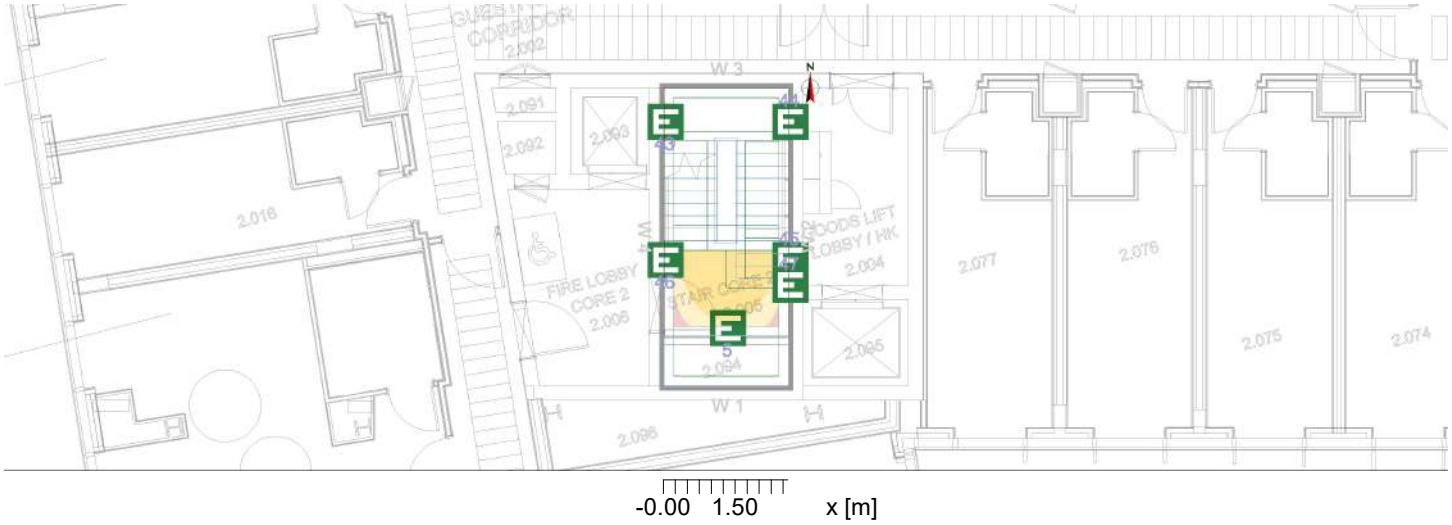
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

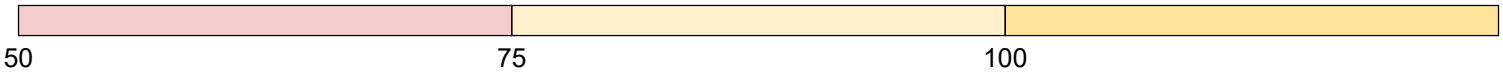
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.33 Result overview, Level 06





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

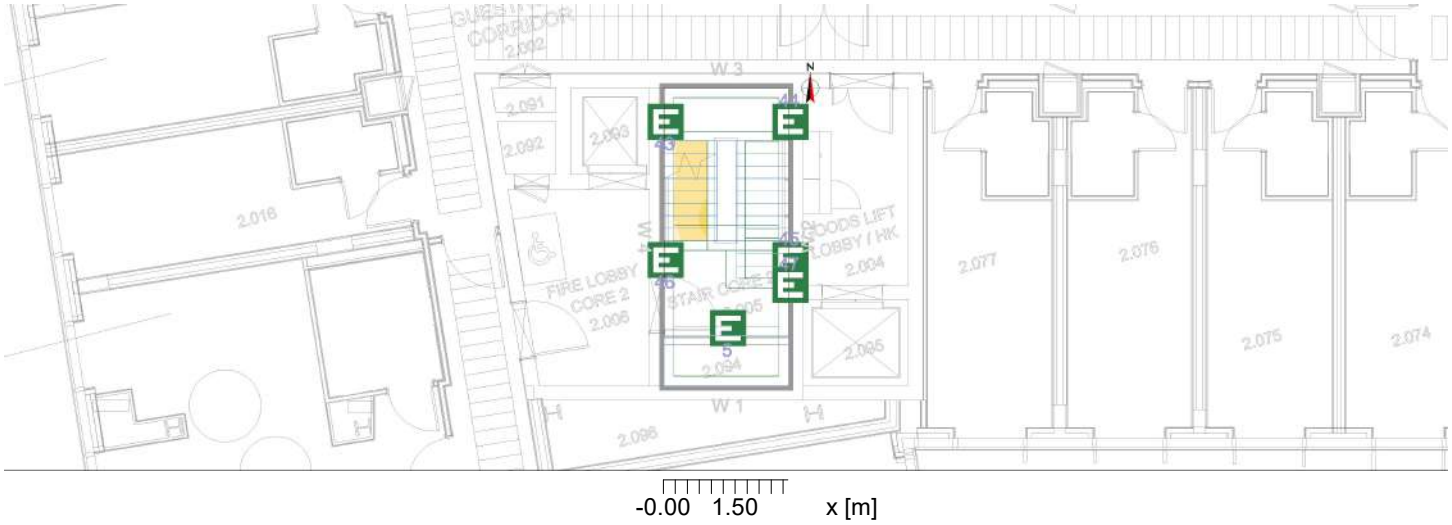
Average illuminance	$\bar{E}_m$	113 lx
Minimum illuminance	E_{min}	74 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.52 (0.66)
Diversity U_d	E_{min}/E_{max}	1:2 (0.5)

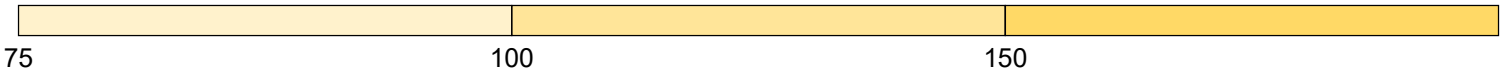
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.34 Result overview, Tread (xvii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

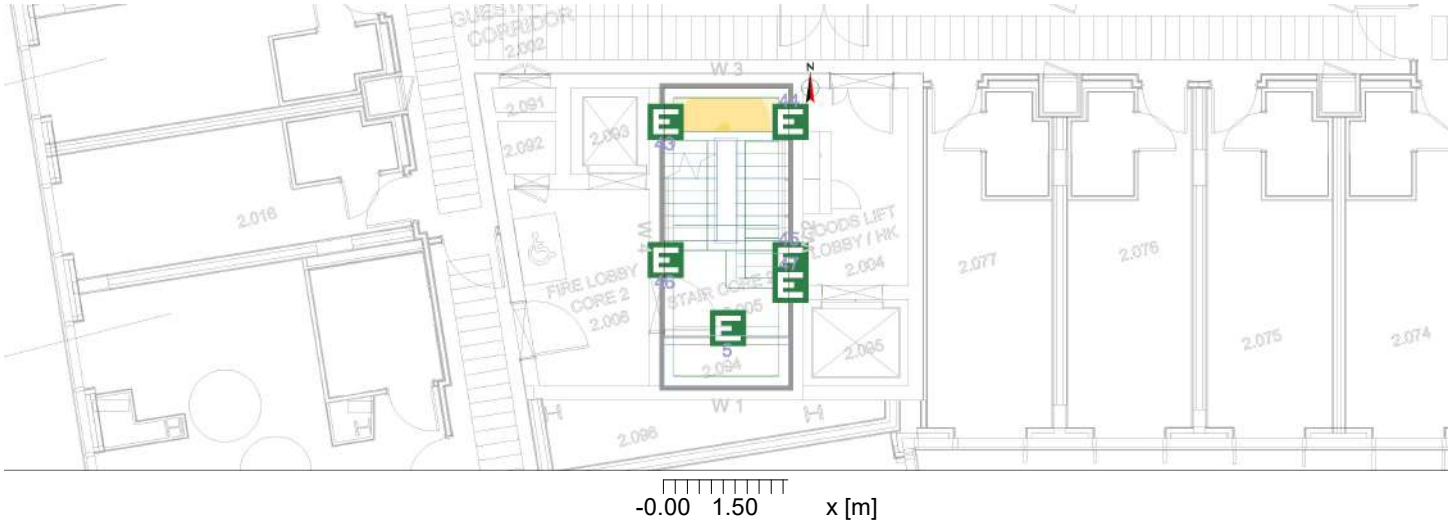
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.6)

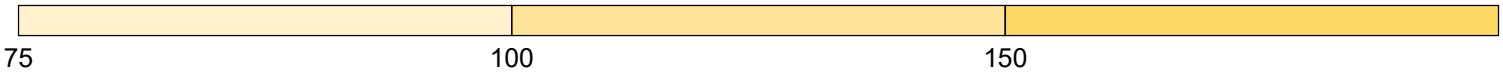
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.35 Result overview, Landing (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	24.23 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

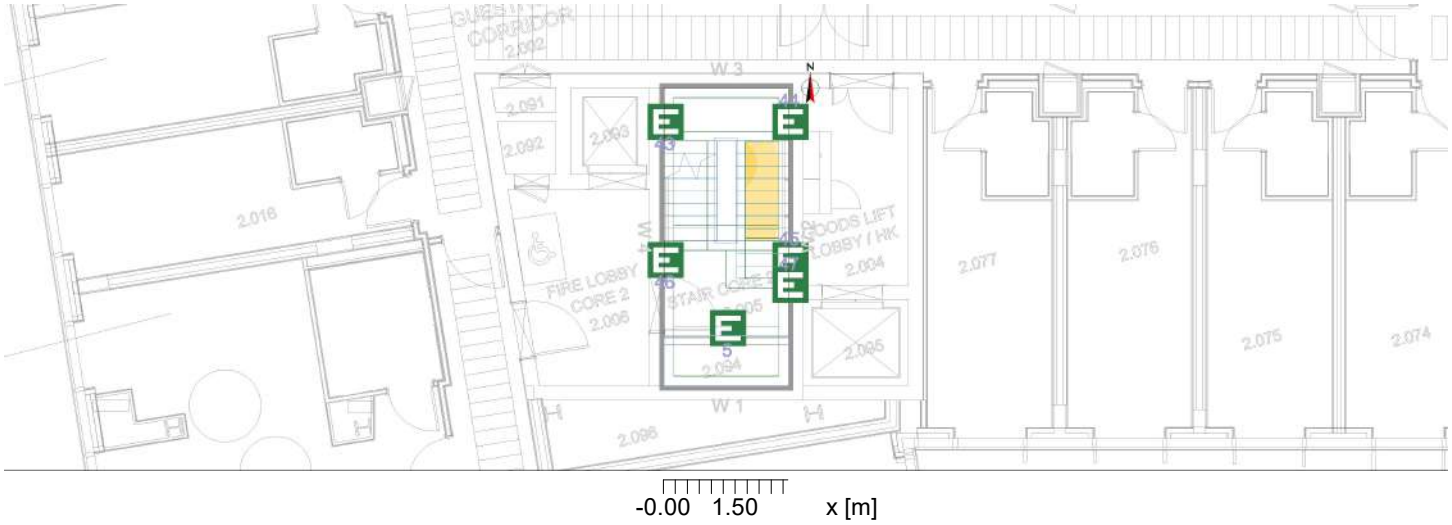
Average illuminance	$\bar{E}_m$	122 lx
Minimum illuminance	E_{min}	78 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.57 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.94 (0.51)

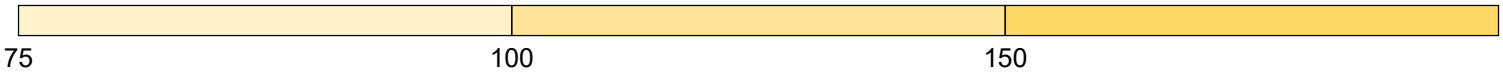
Type No.\Make

2 47E x **Thorn**
Order No. :
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.36 Result overview, Tread (xviii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

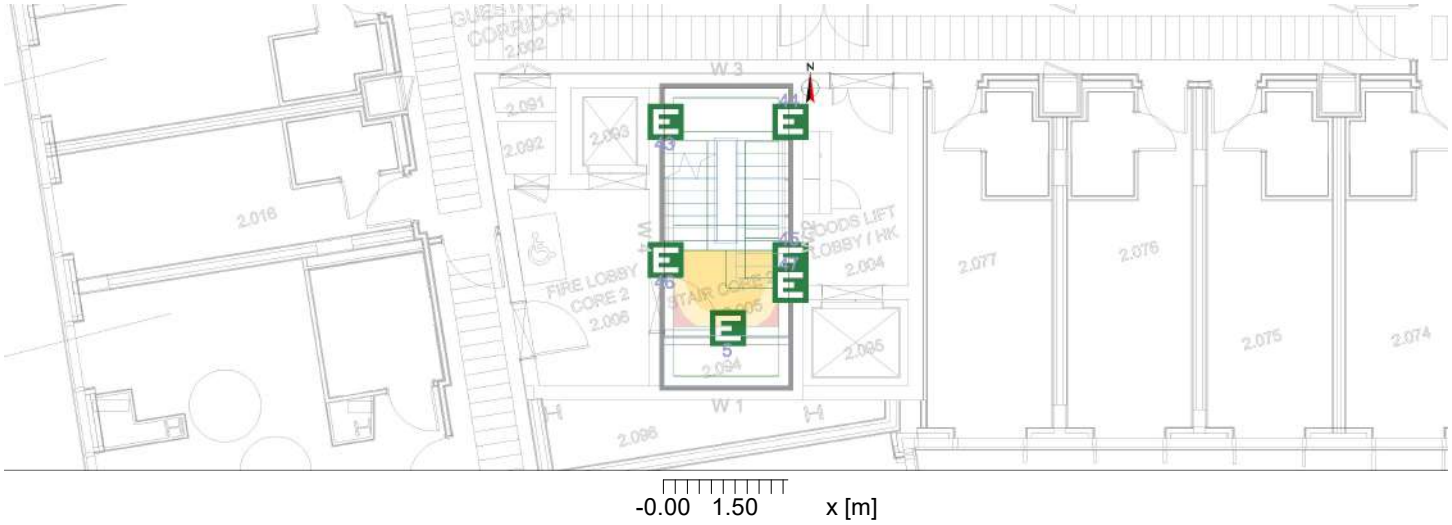
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	98 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.65 (0.61)

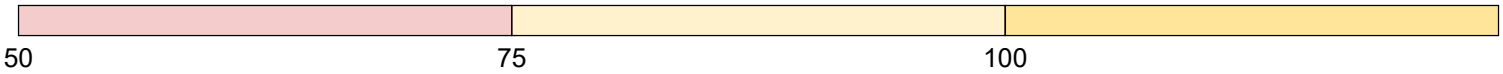
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.37 Result overview, Level 07





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

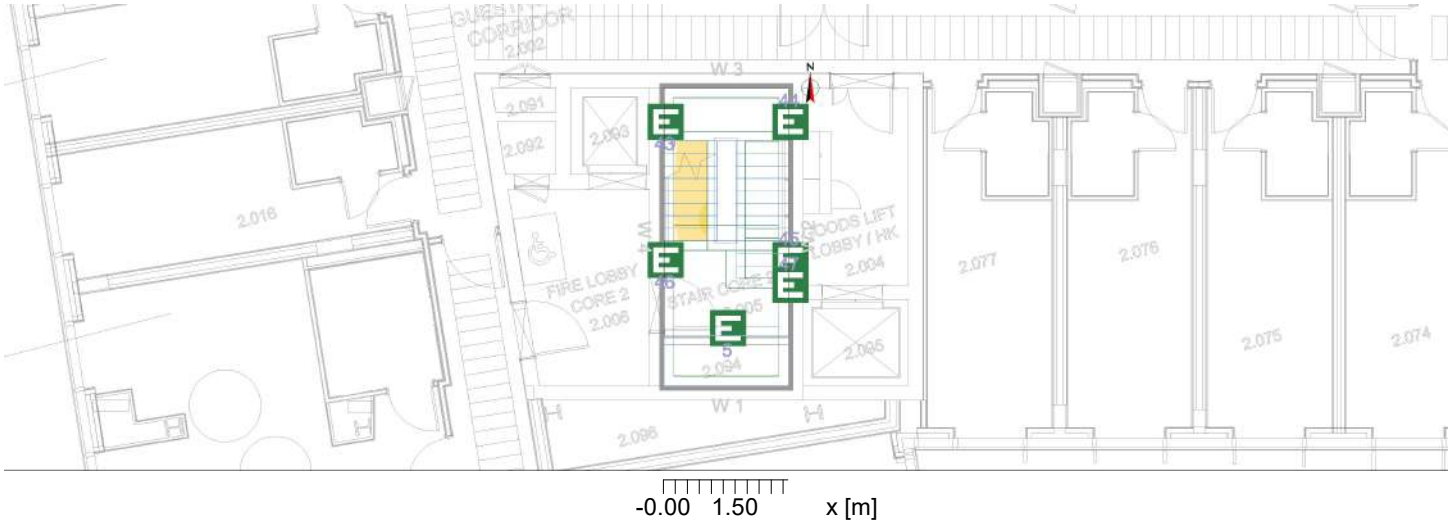
Average illuminance	$\bar{E}_m$	110 lx
Minimum illuminance	E_{min}	70 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.57 (0.64)
Diversity U_d	E_{min}/E_{max}	1:2.09 (0.48)

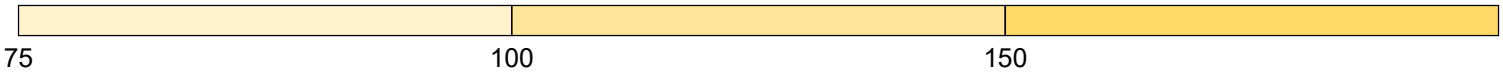
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.38 Result overview, Tread (xix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

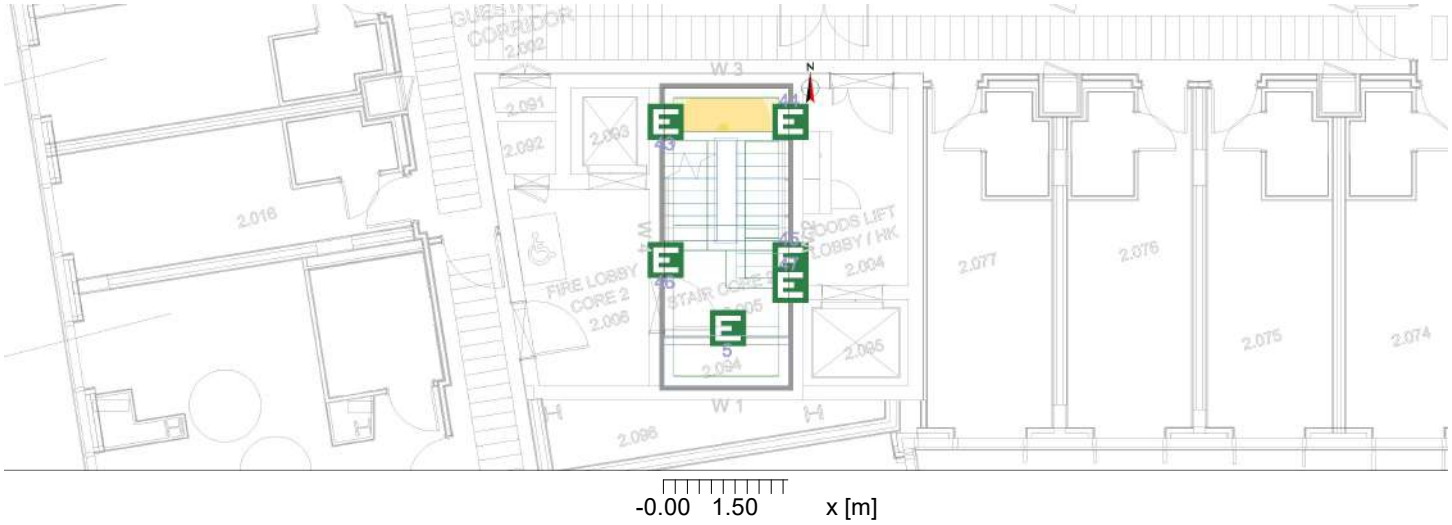
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	98 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.58 (0.63)

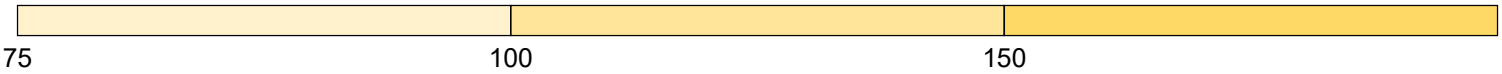
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.39 Result overview, Landing (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	27.23 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	123 lx
Minimum illuminance	E_{min}	80 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.53 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.89 (0.53)

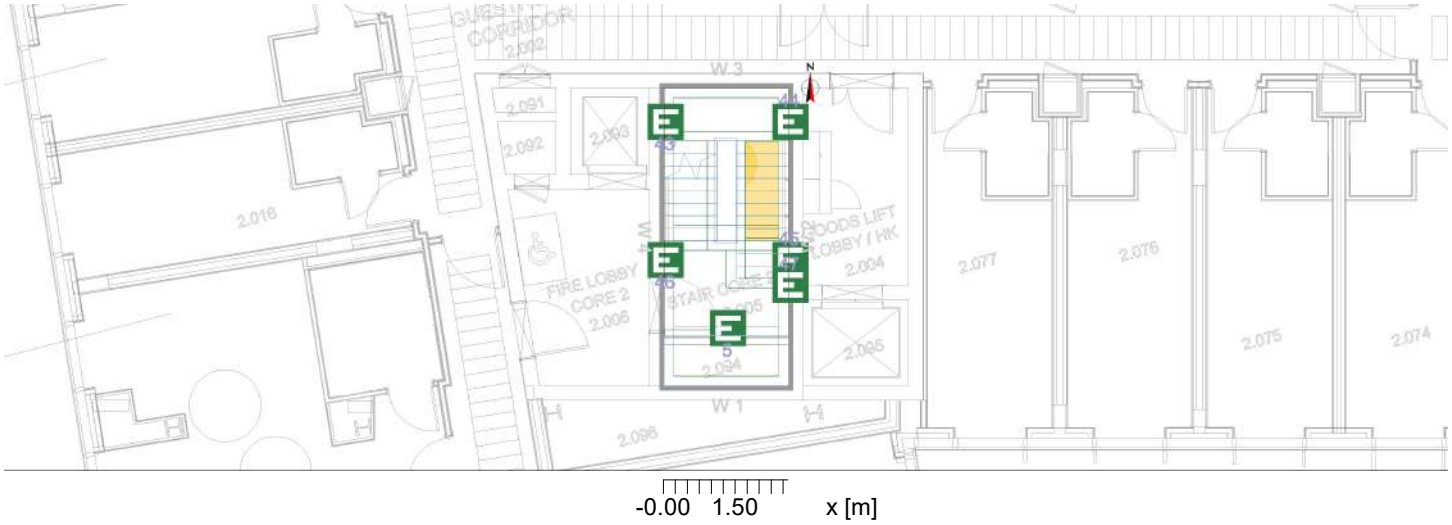
Type No.\Make

2 47E x **Thorn**

Order No.	:
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.40 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

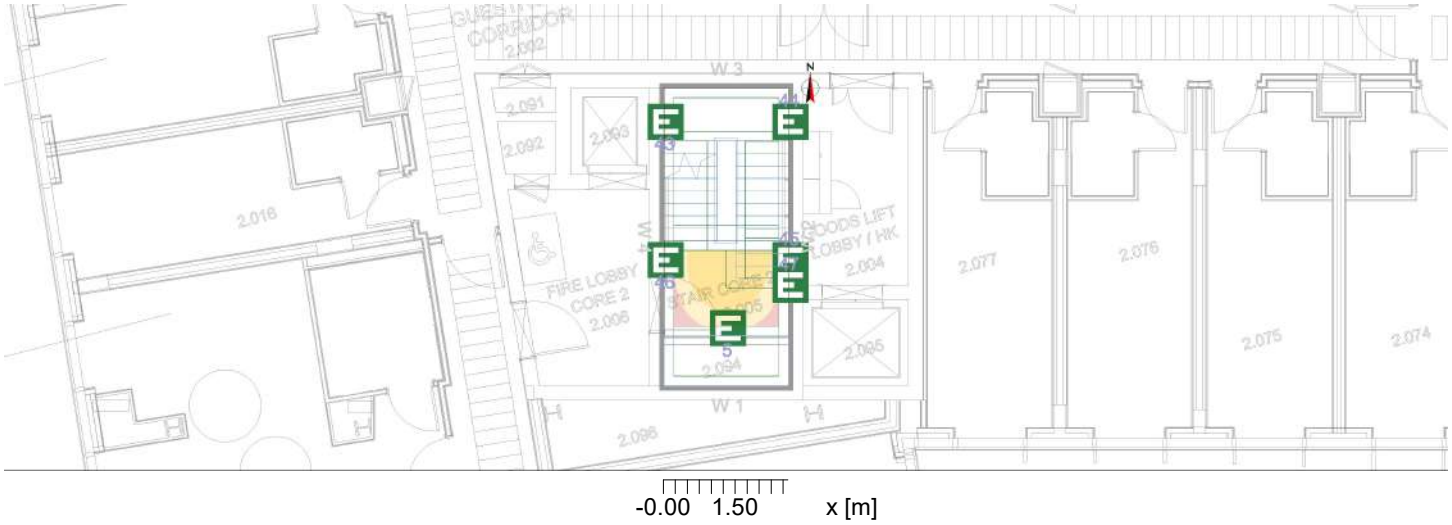
Average illuminance	$\bar{E}_m$	130 lx
Minimum illuminance	E_{min}	100 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

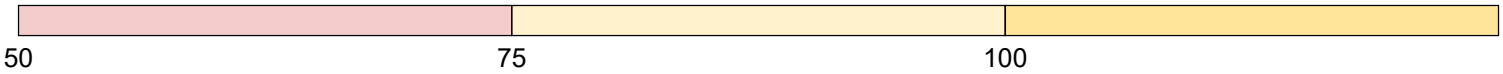
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.41 Result overview, Level 08





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

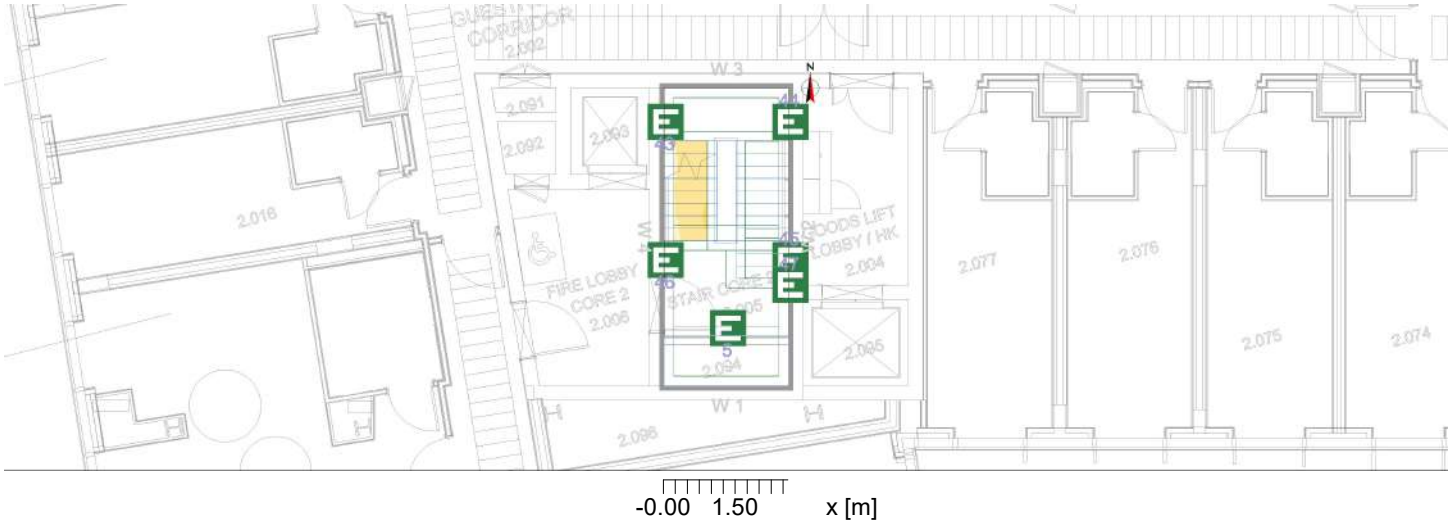
Average illuminance	$\bar{E}_m$	104 lx
Minimum illuminance	E_{min}	65 lx
Maximum illuminance	E_{max}	139 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.59 (0.63)
Diversity U_d	E_{min}/E_{max}	1:2.13 (0.47)

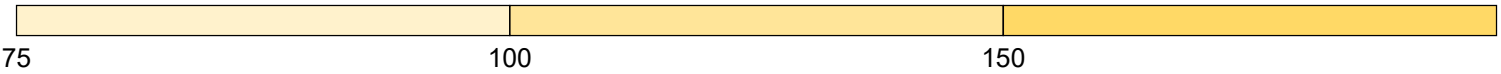
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.42 Result overview, Tread (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

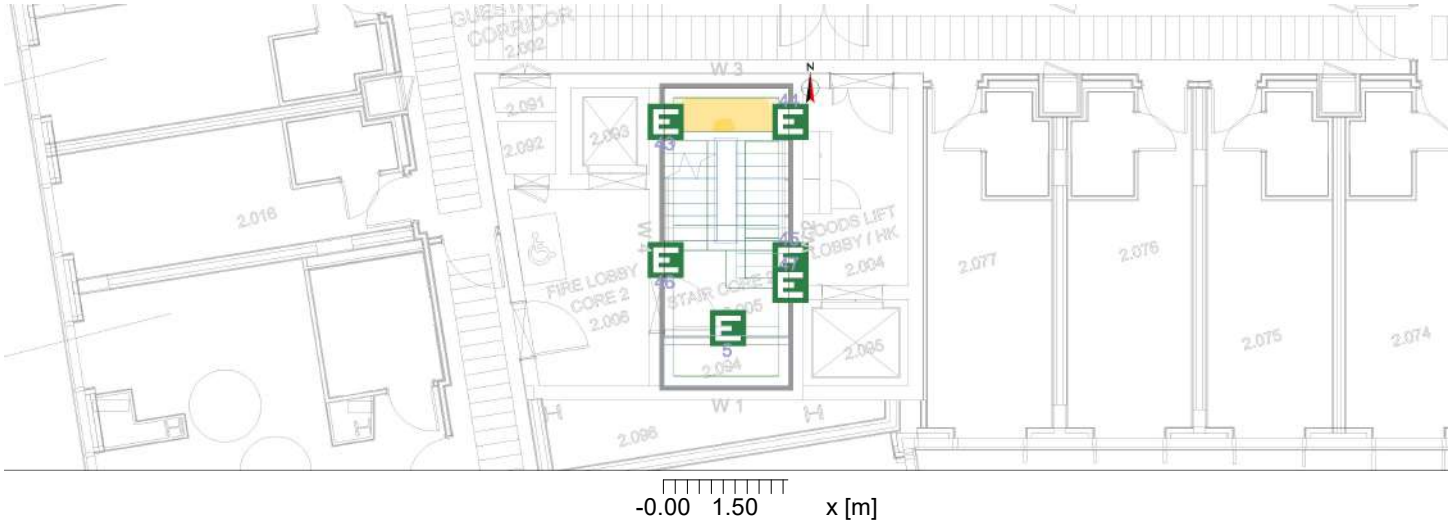
Average illuminance	$\bar{E}_m$	124 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	151 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

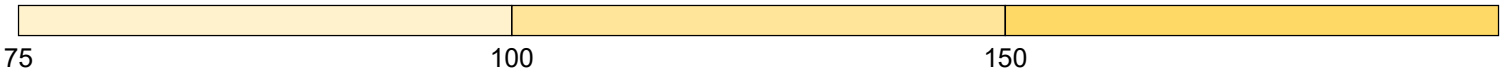
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.43 Result overview, Landing (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	30.24 m
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	88 lx
Maximum illuminance	E_{max}	153 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.43 (0.7)
Diversity U_d	E_{min}/E_{max}	1:1.73 (0.58)

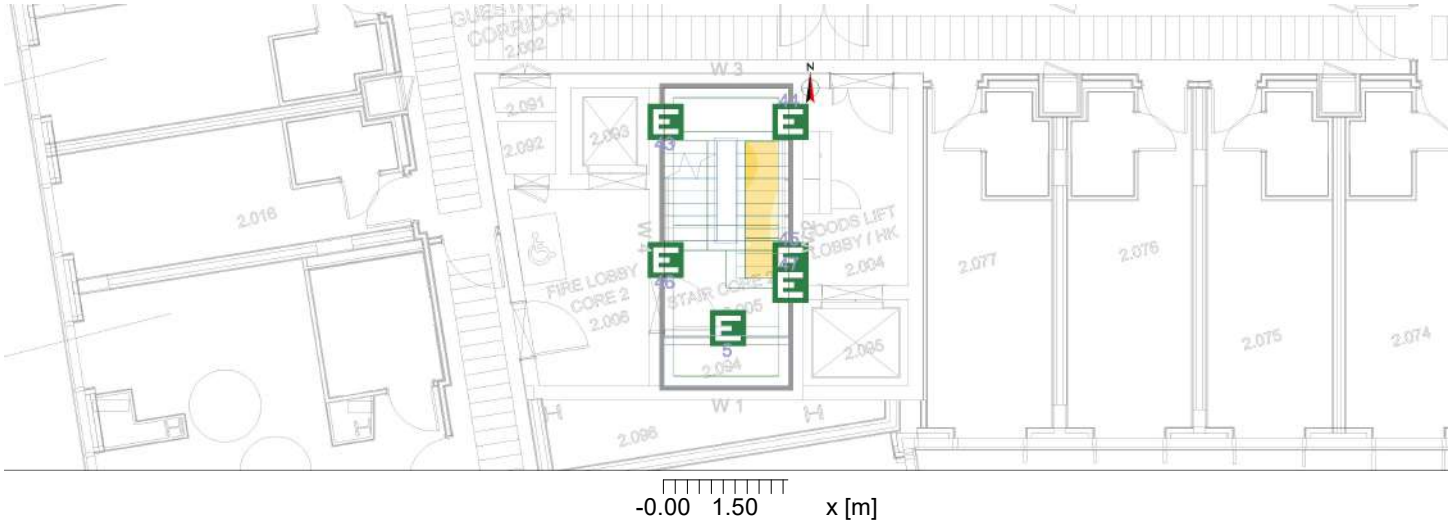
Type No.\Make

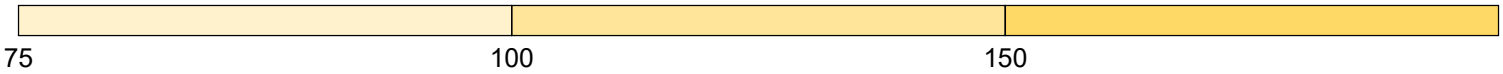
2 47E x **Thorn**

Order No.	:
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.44 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

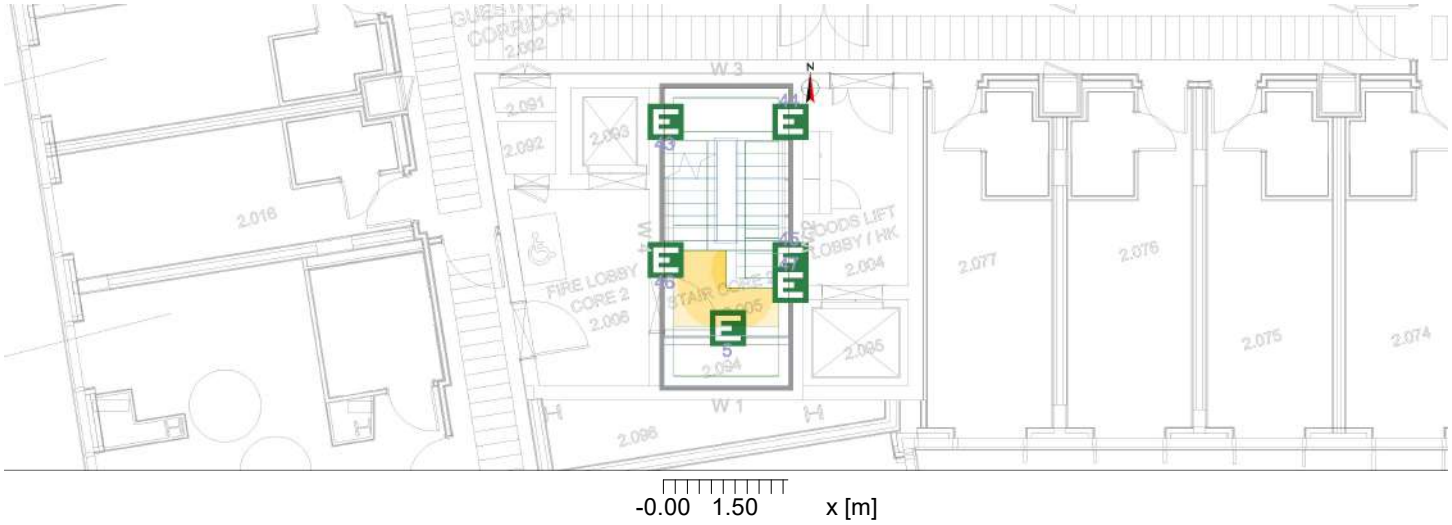
Average illuminance	$\bar{E}_m$	120 lx
Minimum illuminance	E_{min}	94 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.73 (0.58)

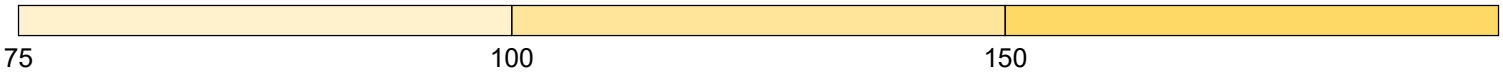
Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.45 Result overview, Level 09





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	83942 lm
Total power	620.4 W
Total power per area (16.12 m²)	38.49 W/m²

Illuminance

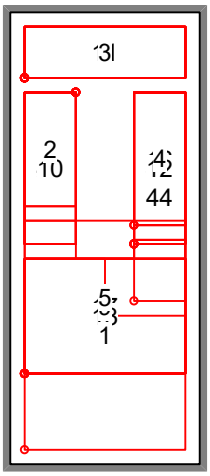
Average illuminance	$\bar{E}_m$	125 lx
Minimum illuminance	E_{min}	87 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.44 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.8 (0.56)

Type No.\Make

		Thorn	
2	47E x	Order No.	:
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

2.1 Summary, Stair Core 2

2.1.46 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	5 x 7	178 lx	128 lx	222 lx	0.72	0.58
1.2	Tread (i)	4 x 12	144 lx	116 lx	173 lx	0.81	0.67
1.3	Landing (i)	14 x 4	138 lx	93 lx	166 lx	0.67	0.56
1.4	Tread (ii)	4 x 14	145 lx	114 lx	177 lx	0.78	0.64
1.5	Level 00M	6 x 6	127 lx	85 lx	162 lx	0.67	0.52
1.6	Tread (iii)	4 x 12	127 lx	108 lx	146 lx	0.85	0.74
1.7	Landing (ii)	14 x 4	128 lx	84 lx	155 lx	0.66	0.55
1.8	Tread (iv)	4 x 14	133 lx	99 lx	162 lx	0.74	0.61
1.9	Level 01	6 x 5	114 lx	76 lx	150 lx	0.67	0.51
1.10	Tread (v)	4 x 16	126 lx	95 lx	156 lx	0.75	0.61
1.11	Landing (iii)	14 x 4	127 lx	85 lx	154 lx	0.67	0.56
1.12	Tread (vi)	4 x 16	132 lx	99 lx	164 lx	0.75	0.61
1.13	Level 01M	6 x 5	116 lx	77 lx	153 lx	0.66	0.50
1.14	Tread (vii)	4 x 16	128 lx	97 lx	160 lx	0.76	0.61
1.15	Landing (iv)	14 x 4	126 lx	81 lx	156 lx	0.64	0.52
1.16	Tread (viii)	4 x 14	135 lx	101 lx	165 lx	0.75	0.61
1.17	Level 02	6 x 5	114 lx	76 lx	147 lx	0.67	0.51
1.18	Tread (ix)	4 x 16	127 lx	95 lx	157 lx	0.75	0.61
1.19	Landing (v)	14 x 4	123 lx	78 lx	152 lx	0.64	0.52
1.20	Tread (x)	4 x 16	130 lx	99 lx	162 lx	0.76	0.61
1.21	Level 03	6 x 5	109 lx	70 lx	146 lx	0.64	0.48
1.22	Tread (xi)	4 x 16	126 lx	98 lx	156 lx	0.78	0.63
1.23	Landing (vi)	14 x 4	123 lx	79 lx	152 lx	0.65	0.52
1.24	Tread (xii)	4 x 16	130 lx	102 lx	163 lx	0.79	0.63
1.25	Level 04	6 x 5	111 lx	72 lx	147 lx	0.65	0.49
1.26	Tread (xiii)	4 x 16	126 lx	99 lx	157 lx	0.78	0.63
1.27	Landing (vii)	14 x 4	127 lx	86 lx	153 lx	0.68	0.56
1.28	Tread (xiv)	4 x 16	130 lx	101 lx	162 lx	0.78	0.62
1.29	Level 05	6 x 5	114 lx	77 lx	149 lx	0.67	0.52
1.30	Tread (xv)	4 x 16	126 lx	96 lx	157 lx	0.76	0.61
1.31	Landing (viii)	14 x 4	127 lx	85 lx	154 lx	0.67	0.55
1.32	Tread (xvi)	4 x 16	130 lx	99 lx	163 lx	0.76	0.61

2.1 Summary, Stair Core 2

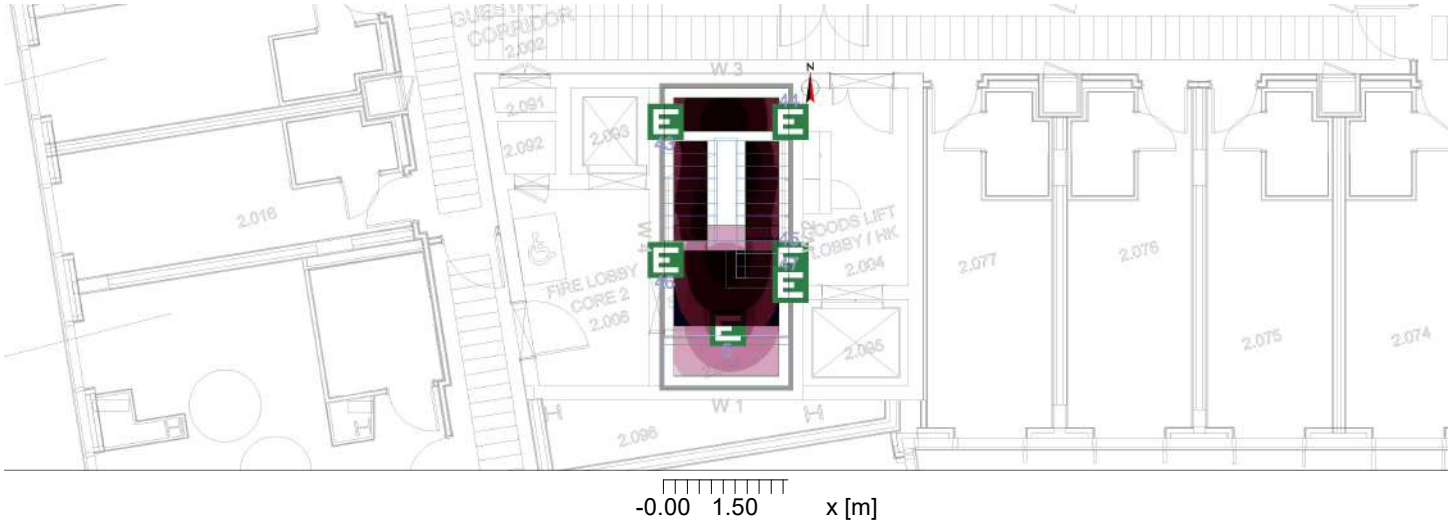
2.1.46 Result overview, Ref Planes (1)

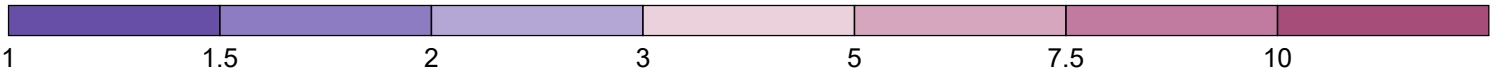
1.33	Level 06	6 x 5	113 lx	74 lx	149 lx	0.66	0.50
1.34	Tread (xvii)	4 x 16	126 lx	95 lx	157 lx	0.75	0.60
1.35	Landing (ix)	14 x 4	122 lx	78 lx	152 lx	0.64	0.51
1.36	Tread (xviii)	4 x 16	130 lx	98 lx	162 lx	0.76	0.61
1.37	Level 07	6 x 5	110 lx	70 lx	146 lx	0.64	0.48
1.38	Tread (xix)	4 x 16	126 lx	98 lx	156 lx	0.78	0.63
1.39	Landing (x)	14 x 4	123 lx	80 lx	152 lx	0.65	0.53
1.40	Tread (x)	4 x 16	130 lx	100 lx	162 lx	0.77	0.62
1.41	Level 08	6 x 5	104 lx	65 lx	139 lx	0.63	0.47
1.42	Tread (ix)	4 x 16	124 lx	93 lx	151 lx	0.75	0.62
1.43	Landing (xi)	14 x 4	127 lx	88 lx	153 lx	0.70	0.58
1.44	Tread (x)	4 x 22	120 lx	94 lx	163 lx	0.78	0.58
1.45	Level 09	6 x 5	125 lx	87 lx	156 lx	0.69	0.56
Summary			**126 lx**	**65 lx**	**222 lx**	**0.52**	**0.29**

2 Stair Core 2

2.2 Summary, Stair Core 2

2.2.1.1 Result overview (emergency lighting)

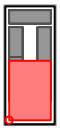
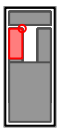
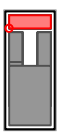




General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 58 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud	
1 Level 00				
Calculation field: 2.2m x 3.14m (5 x 7 pts), Height = 0.00m				
1	2.46 lx	11.33 lx	1: 4.61	
	>= 1 lx		>= 1 : 40	
2 Tread (i)				
Calculation field: 0.7m x 1.82m (4 x 12 pts), Height = 1.15m				
2	3.25 lx	7.29 lx	1: 2.24	
	>= 1 lx		>= 1 : 40	
3 Landing (i)				
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 1.15m				
3	2.94 lx	8.81 lx	1: 3.00	
	>= 1 lx		>= 1 : 40	

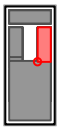
2 Stair Core 2

2.2 Summary, Stair Core 2

2.2.1.1 Result overview (emergency lighting)

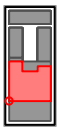
4 Tread (ii)
Calculation field: 0.7m x 2.15m (4 x 14 pts), Height = 2.47m

4	3.57 lx	9.65 lx	1: 2.70
	>= 1 lx		>= 1 : 40



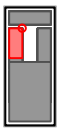
5 Level 00M
Calculation field: 2.2m x 2.1m (6 x 6 pts), Height = 2.47m

5	1.98 lx	8.63 lx	1: 4.36
	>= 1 lx		>= 1 : 40



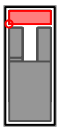
6 Tread (iii)
Calculation field: 0.7m x 1.83m (4 x 12 pts), Height = 3.62m

6	3.54 lx	8.28 lx	1: 2.34
	>= 1 lx		>= 1 : 40



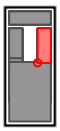
7 Landing (ii)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 3.62m

7	2.94 lx	8.90 lx	1: 3.02
	>= 1 lx		>= 1 : 40



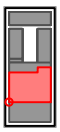
8 Tread (iv)
Calculation field: 0.7m x 2.15m (4 x 14 pts), Height = 4.94m

8	2.89 lx	9.42 lx	1: 3.26
	>= 1 lx		>= 1 : 40



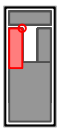
9 Level 01
Calculation field: 2.2m x 1.84m (6 x 5 pts), Height = 4.94m

9	1.98 lx	8.83 lx	1: 4.46
	>= 1 lx		>= 1 : 40



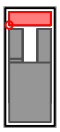
10 Tread (v)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 6.42m

10	3.40 lx	9.67 lx	1: 2.85
	>= 1 lx		>= 1 : 40



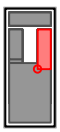
11 Landing (iii)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 6.43m

11	2.94 lx	8.66 lx	1: 2.94
	>= 1 lx		>= 1 : 40



12 Tread (vi)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 7.92m

12	3.33 lx	9.53 lx	1: 2.86
	>= 1 lx		>= 1 : 40



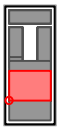
2 Stair Core 2

2.2 Summary, Stair Core 2

2.2.1.1 Result overview (emergency lighting)

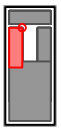
13 Level 01M
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 7.92m

13	1.95 lx	8.65 lx	1: 4.44
	>= 1 lx		>= 1 : 40



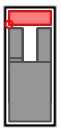
14 Tread (vii)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 9.41m

14	3.40 lx	9.67 lx	1: 2.85
	>= 1 lx		>= 1 : 40



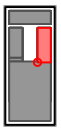
15 Landing (iv)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 9.41m

15	2.94 lx	8.68 lx	1: 2.95
	>= 1 lx		>= 1 : 40



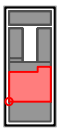
16 Tread (viii)
Calculation field: 0.7m x 2.15m (4 x 14 pts), Height = 10.74m

16	3.33 lx	9.52 lx	1: 2.86
	>= 1 lx		>= 1 : 40



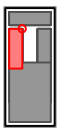
17 Level 02
Calculation field: 2.2m x 1.84m (6 x 5 pts), Height = 10.74m

17	1.98 lx	8.82 lx	1: 4.46
	>= 1 lx		>= 1 : 40



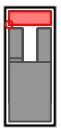
18 Tread (ix)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 12.24m

18	3.43 lx	9.77 lx	1: 2.85
	>= 1 lx		>= 1 : 40



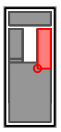
19 Landing (v)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 12.24m

19	2.94 lx	8.65 lx	1: 2.94
	>= 1 lx		>= 1 : 40



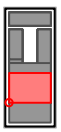
20 Tread (x)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 13.73m

20	3.33 lx	9.53 lx	1: 2.86
	>= 1 lx		>= 1 : 40



21 Level 03
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 13.73m

21	1.95 lx	8.60 lx	1: 4.42
	>= 1 lx		>= 1 : 40



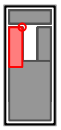
2 Stair Core 2

2.2 Summary, Stair Core 2

2.2.1.1 Result overview (emergency lighting)

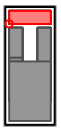
22 Tread (xi)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 15.24m

22	3.43 lx	9.77 lx	1: 2.85
	>= 1 lx		>= 1 : 40



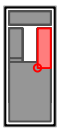
23 Landing (vi)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 15.24m

23	2.94 lx	8.65 lx	1: 2.94
	>= 1 lx		>= 1 : 40



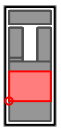
24 Tread (xii)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 16.73m

24	3.33 lx	9.53 lx	1: 2.86
	>= 1 lx		>= 1 : 40



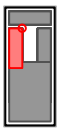
25 Level 04
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 16.73m

25	1.95 lx	8.60 lx	1: 4.42
	>= 1 lx		>= 1 : 40



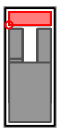
26 Tread (xiii)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 18.24m

26	3.43 lx	9.77 lx	1: 2.85
	>= 1 lx		>= 1 : 40



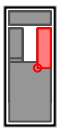
27 Landing (vii)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 18.24m

27	2.94 lx	8.65 lx	1: 2.94
	>= 1 lx		>= 1 : 40



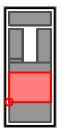
28 Tread (xiv)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 19.73m

28	3.33 lx	9.53 lx	1: 2.86
	>= 1 lx		>= 1 : 40



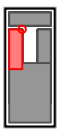
29 Level 05
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 19.73m

29	1.95 lx	8.60 lx	1: 4.42
	>= 1 lx		>= 1 : 40



30 Tread (xv)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 21.24m

30	3.43 lx	9.77 lx	1: 2.85
	>= 1 lx		>= 1 : 40



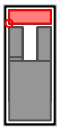
2 Stair Core 2

2.2 Summary, Stair Core 2

2.2.1.1 Result overview (emergency lighting)

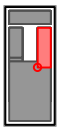
31 Landing (viii)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 21.24m

31	2.94 lx	8.65 lx	1: 2.94
	>= 1 lx		>= 1 : 40



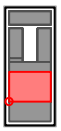
32 Tread (xvi)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 22.73m

32	3.33 lx	9.53 lx	1: 2.86
	>= 1 lx		>= 1 : 40



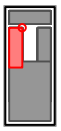
33 Level 06
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 22.73m

33	1.95 lx	8.60 lx	1: 4.42
	>= 1 lx		>= 1 : 40



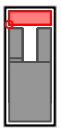
34 Tread (xvii)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 24.24m

34	3.43 lx	9.77 lx	1: 2.85
	>= 1 lx		>= 1 : 40



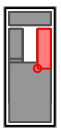
35 Landing (ix)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 24.24m

35	2.94 lx	8.65 lx	1: 2.94
	>= 1 lx		>= 1 : 40



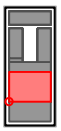
36 Tread (xviii)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 25.73m

36	3.33 lx	9.53 lx	1: 2.86
	>= 1 lx		>= 1 : 40



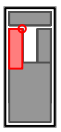
37 Level 07
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 25.73m

37	1.95 lx	8.60 lx	1: 4.42
	>= 1 lx		>= 1 : 40



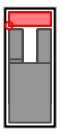
38 Tread (xix)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 27.24m

38	3.43 lx	9.77 lx	1: 2.85
	>= 1 lx		>= 1 : 40



39 Landing (x)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 27.24m

39	3.08 lx	8.65 lx	1: 2.80
	>= 1 lx		>= 1 : 40



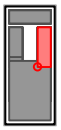
2 Stair Core 2

2.2 Summary, Stair Core 2

2.2.1.1 Result overview (emergency lighting)

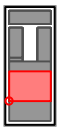
40 Tread (x)
Calculation field: 0.7m x 2.46m (4 x 16 pts), Height = 28.73m

40	3.45 lx	9.64 lx	1: 2.79
	>= 1 lx		>= 1 : 40



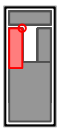
41 Level 08
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 28.73m

41	1.95 lx	8.60 lx	1: 4.42
	>= 1 lx		>= 1 : 40



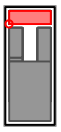
42 Tread (ix)
Calculation field: 0.7m x 2.44m (4 x 16 pts), Height = 30.24m

42	3.43 lx	9.78 lx	1: 2.85
	>= 1 lx		>= 1 : 40



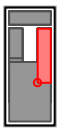
43 Landing (xi)
Calculation field: 2.2m x 0.7m (14 x 4 pts), Height = 30.24m

43	3.29 lx	8.79 lx	1: 2.68
	>= 1 lx		>= 1 : 40



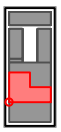
44 Tread (x)
Calculation field: 0.7m x 3.37m (4 x 22 pts), Height = 32.23m

44	1.23 lx	9.85 lx	1: 8.01
	>= 1 lx		>= 1 : 40



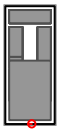
45 Level 09
Calculation field: 2.2m x 1.58m (6 x 5 pts), Height = 32.23m

45	2.08 lx	7.73 lx	1: 3.71
	>= 1 lx		>= 1 : 40



Places to highlight

No.	Surface Emin [lx]	Emax [lx]
1 Level 00 Call Point		
Calculation field: 0.2m x 0.2m (3 x 3 pts)		
1	9.28 lx	10.31 lx
	>= 5 lx	



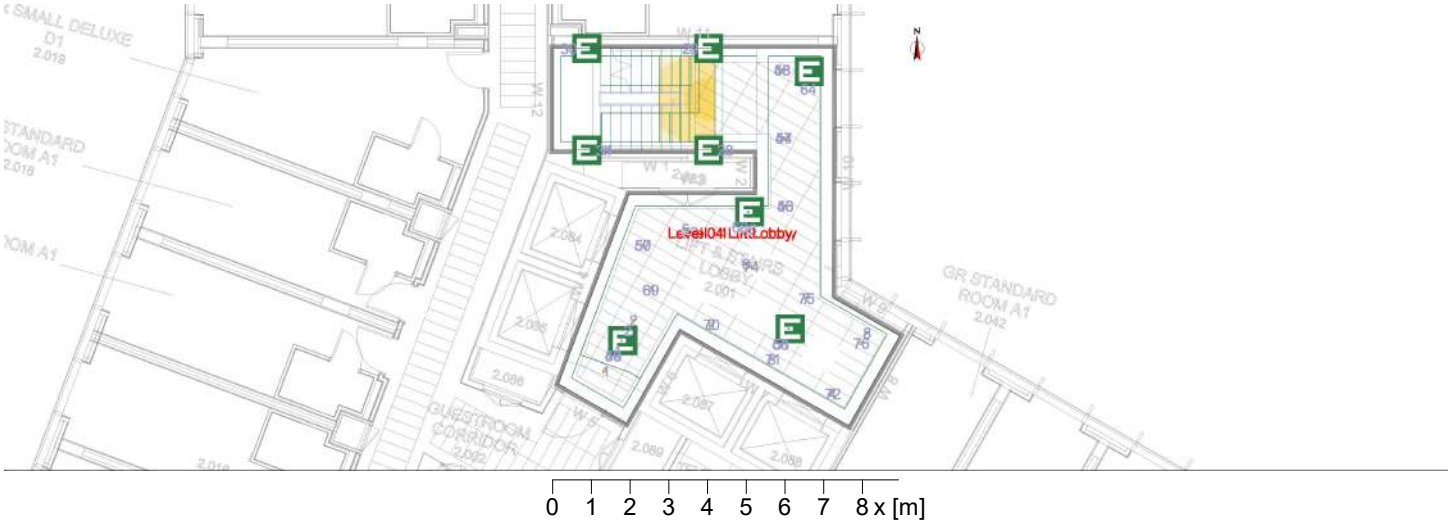
Type No.\Make

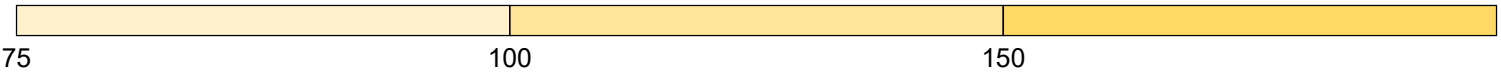
Thorn
2 46E x
Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

3 Stair Core 3

3.1 Summary, Stair Core 3

3.1.1 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	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	132 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	167 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.39 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.75 (0.57)

Type No.\Make

1 56 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

3 Stair Core 3

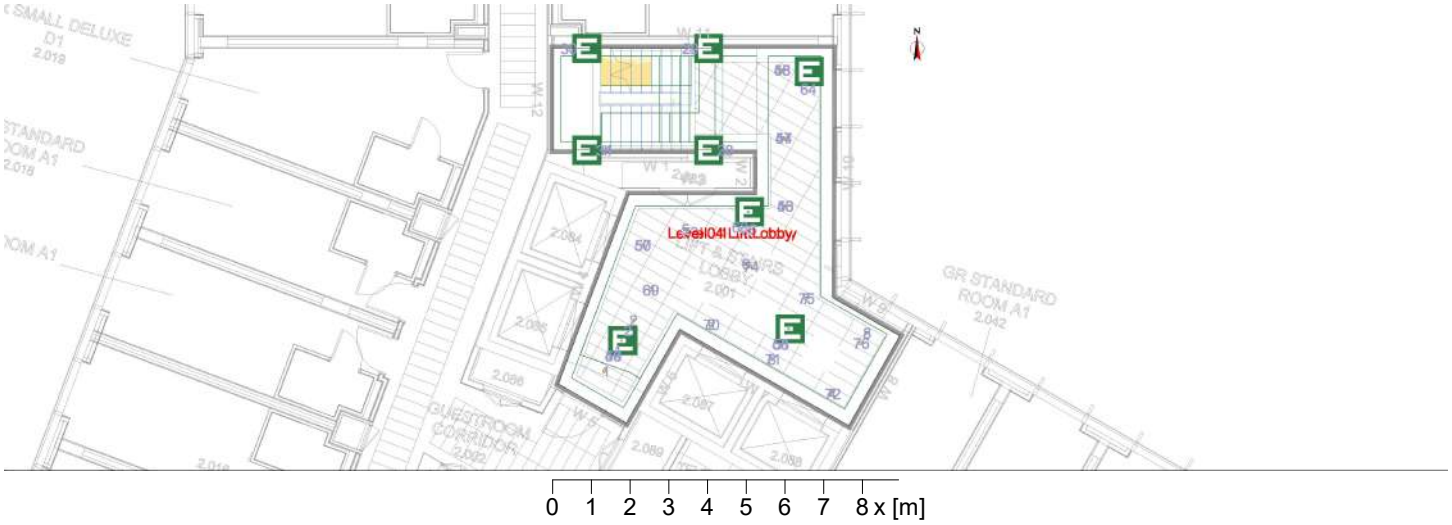
3.1 Summary, Stair Core 3

3.1.1 Result overview, Level 00

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.2 Result overview, Tread (i)





75 100

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	111 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	135 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

		Chiara Lighting Limited	
1	56 x	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

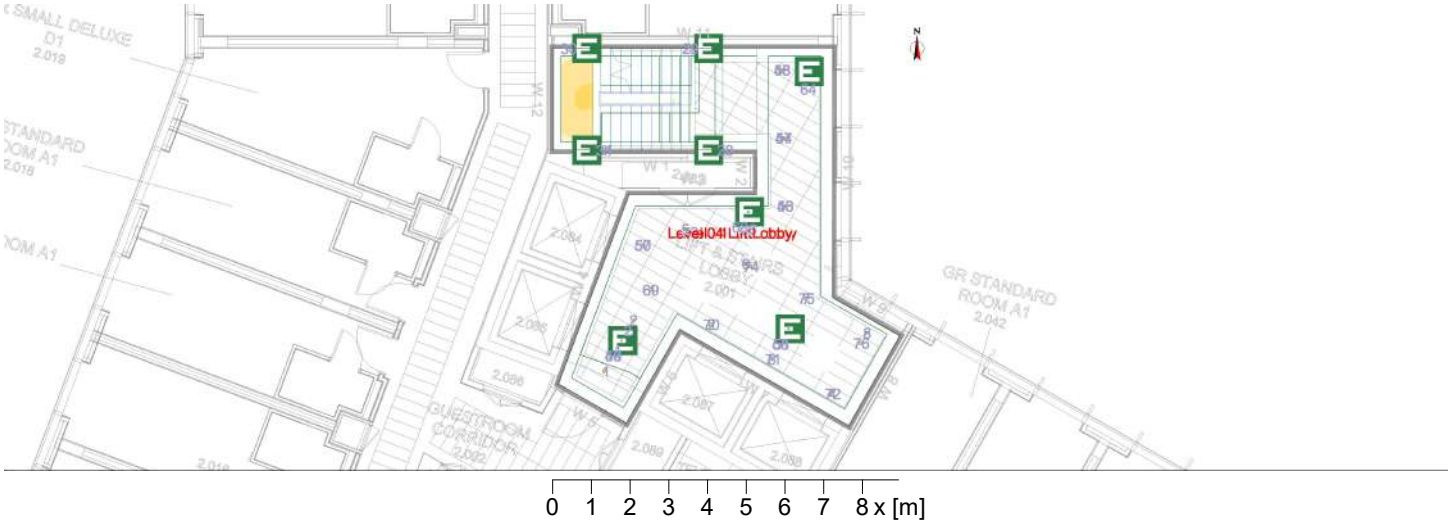
3.1 Summary, Stair Core 3

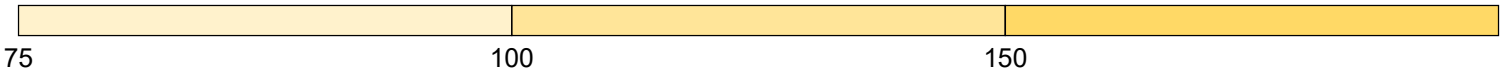
3.1.2 Result overview, Tread (i)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.3 Result overview, Landing (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.99 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.42 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.71 (0.58)

Type No.\Make

1 56 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

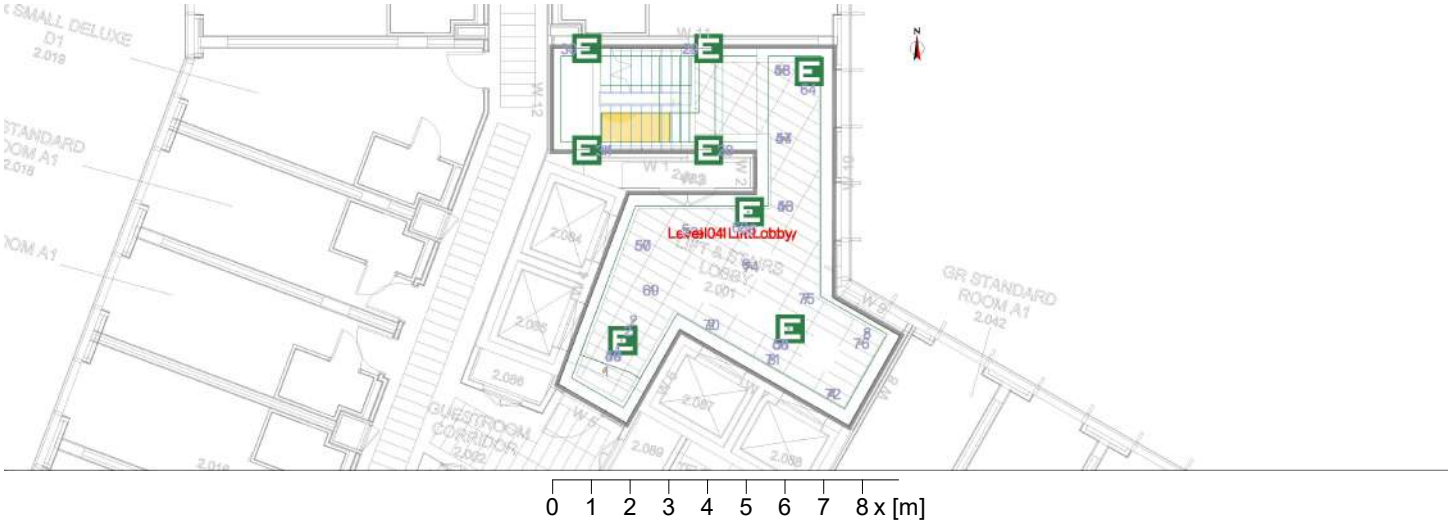
3.1 Summary, Stair Core 3

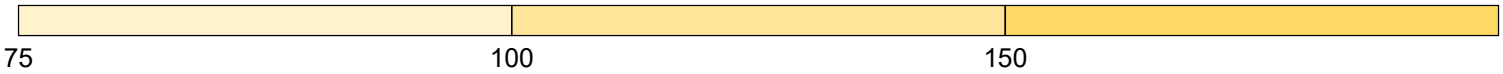
3.1.3 Result overview, Landing (i)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.4 Result overview, Tread (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	131 lx
Minimum illuminance	E_{min}	100 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

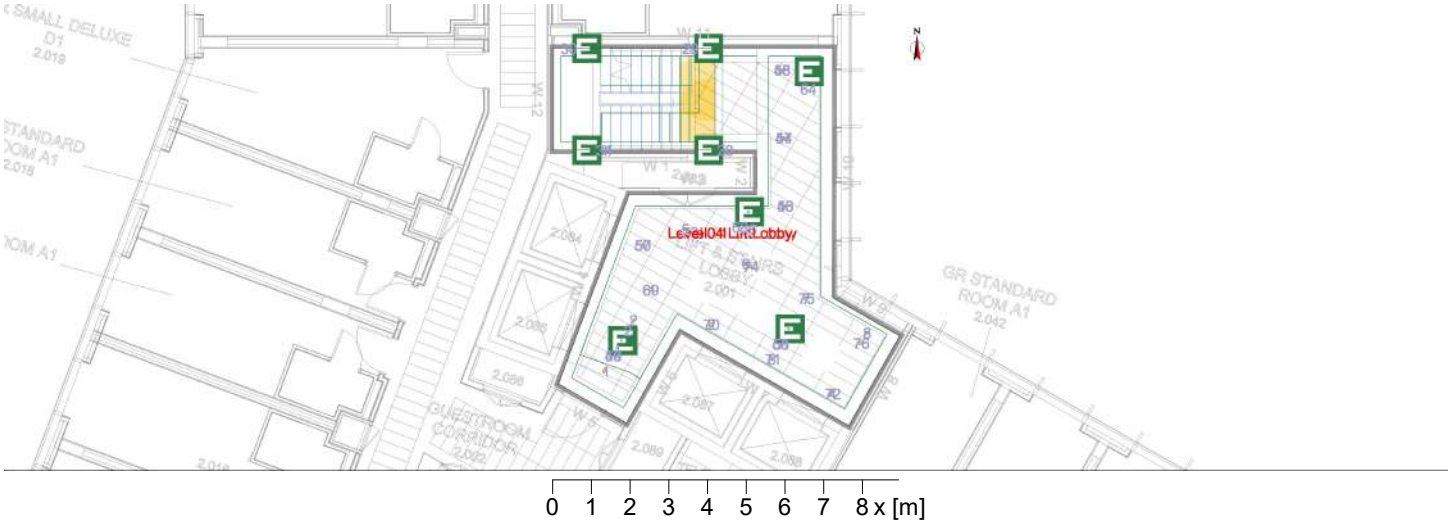
3.1 Summary, Stair Core 3

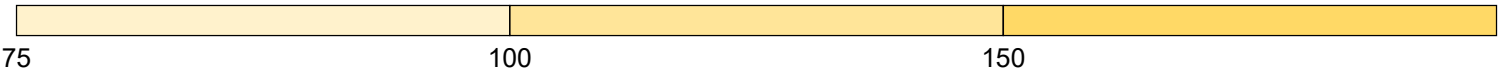
3.1.4 Result overview, Tread (ii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.5 Result overview, Level 00M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	2.32 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	140 lx
Minimum illuminance	E_{min}	94 lx
Maximum illuminance	E_{max}	168 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.49 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.79 (0.56)

Type No.\Make

Chiara Lighting Limited

1 56 x

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

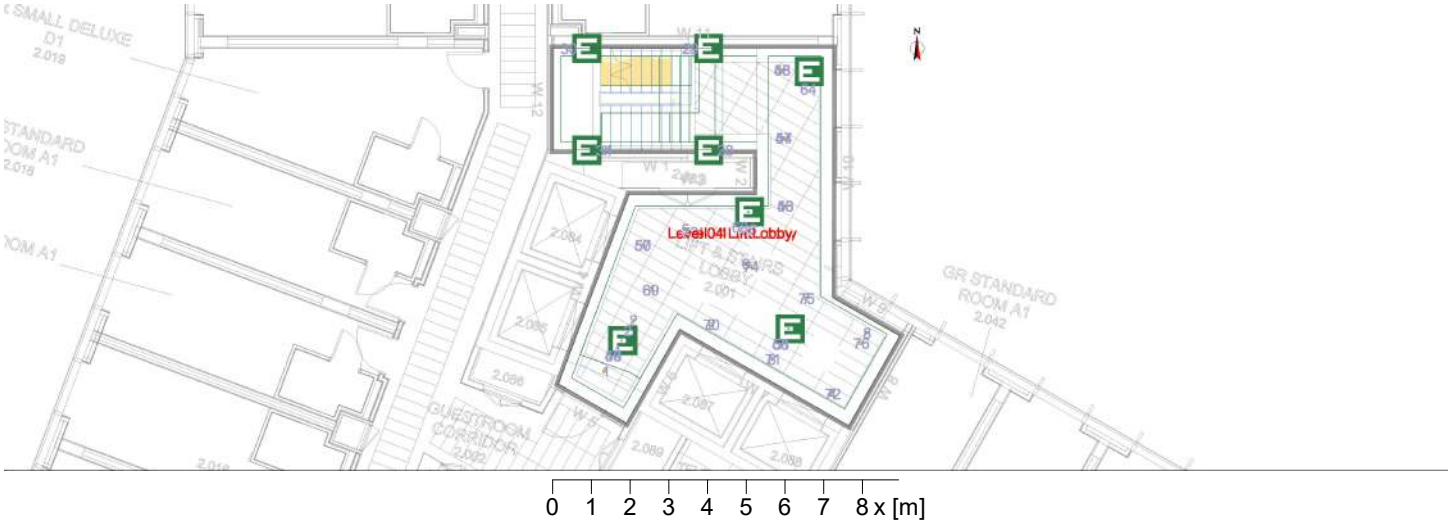
3.1 Summary, Stair Core 3

3.1.5 Result overview, Level 00M

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.6 Result overview, Tread (iii)





75 100

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	90 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

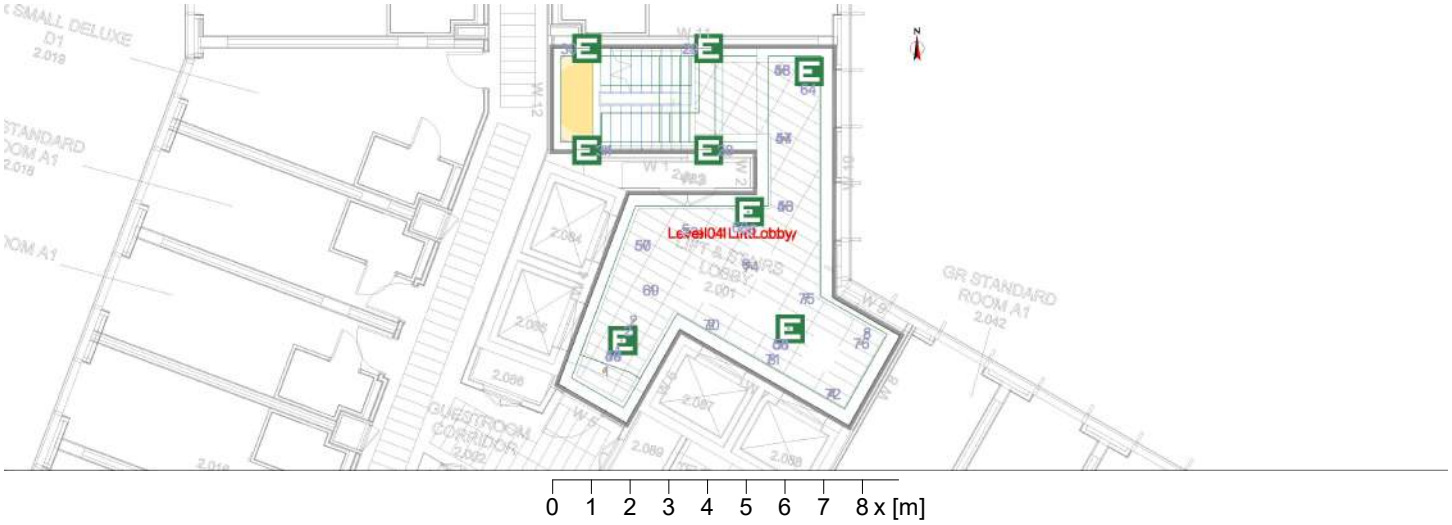
3.1 Summary, Stair Core 3

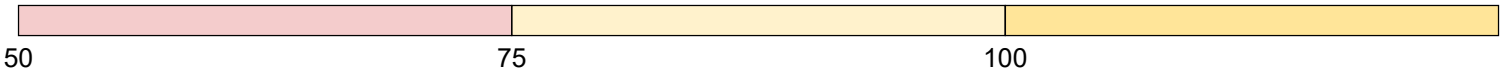
3.1.6 Result overview, Tread (iii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.7 Result overview, Landing (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.64 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	118 lx
Minimum illuminance	E_{min}	75 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.57 (0.64)
Diversity U_d	E_{min}/E_{max}	1:1.96 (0.51)

Type No.\Make

1 56 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

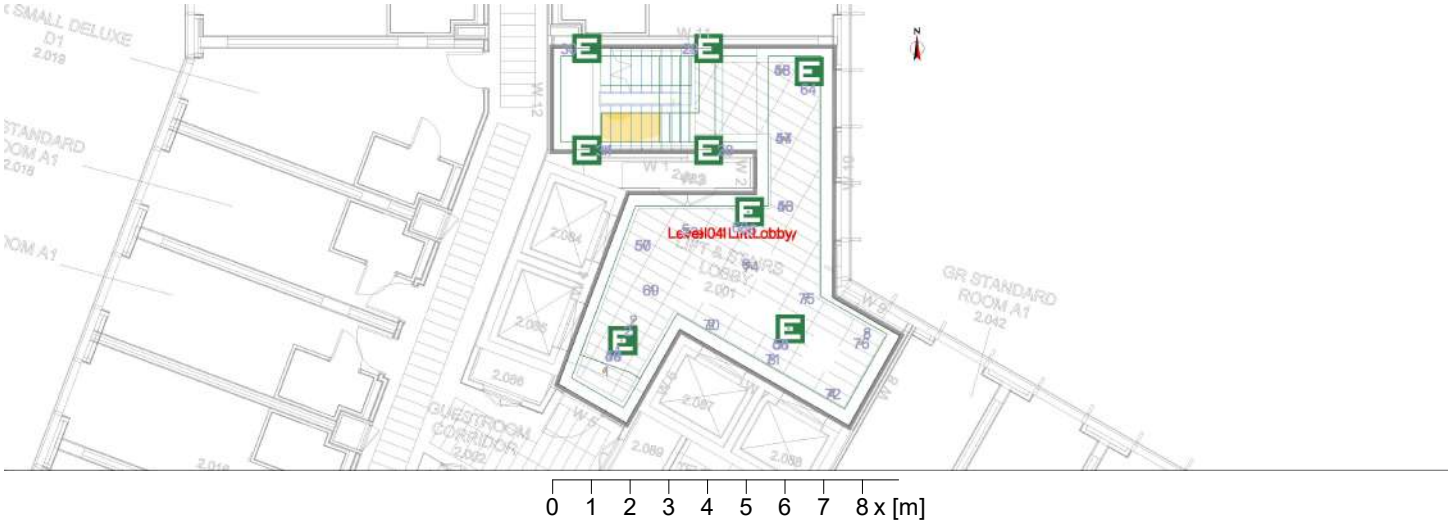
3.1 Summary, Stair Core 3

3.1.7 Result overview, Landing (ii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.8 Result overview, Tread (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	125 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.67 (0.6)

Type No.\Make

1 56 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

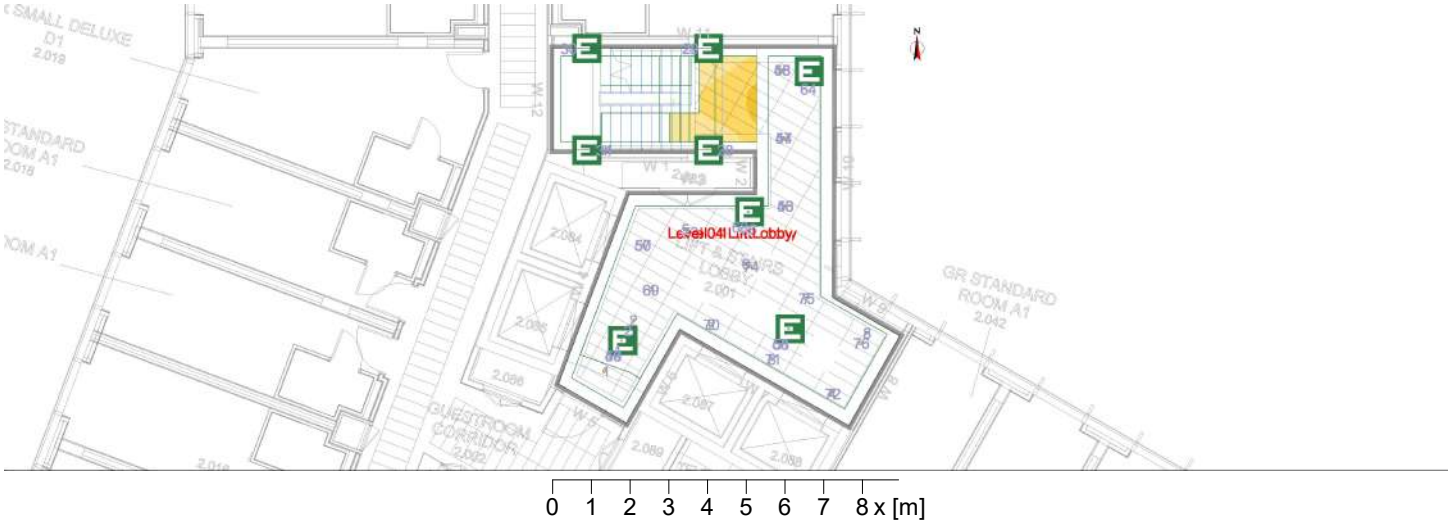
3.1 Summary, Stair Core 3

3.1.8 Result overview, Tread (iv)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.9 Result overview, Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	155 lx
Minimum illuminance	E_{min}	103 lx
Maximum illuminance	E_{max}	205 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.5 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.98 (0.5)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

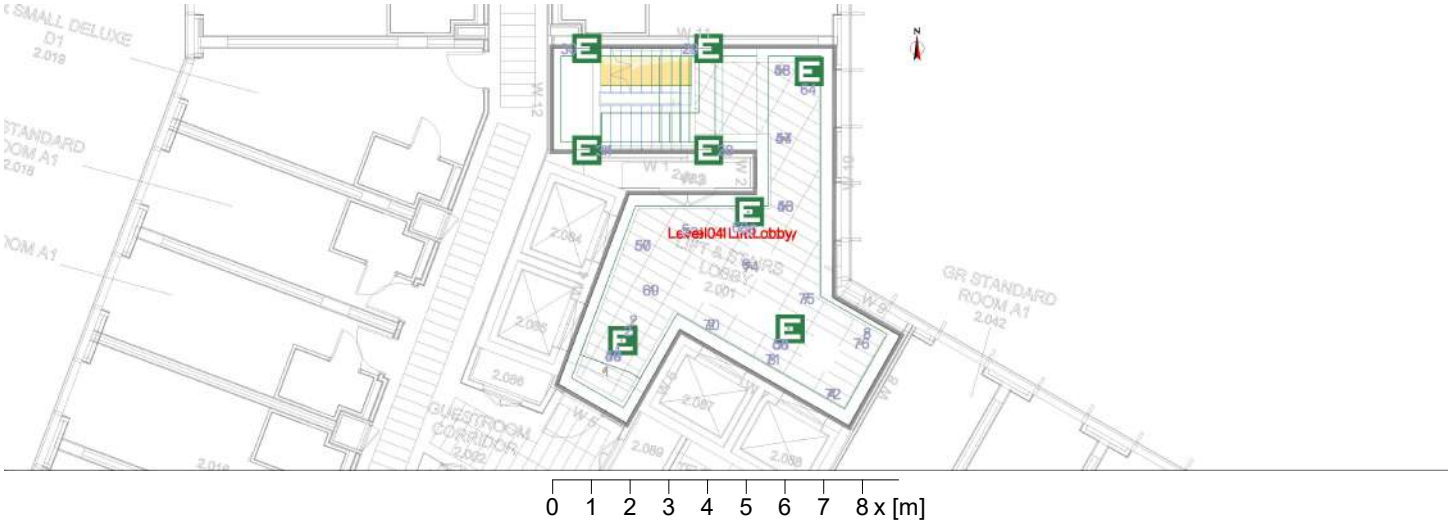
3.1 Summary, Stair Core 3

3.1.9 Result overview, Level 01

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.10 Result overview, Tread (v)





75 100

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	111 lx
Minimum illuminance	E_{min}	83 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}	1:1.76 (0.57)

Type No.\Make

Chiara Lighting Limited

1 56 x



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

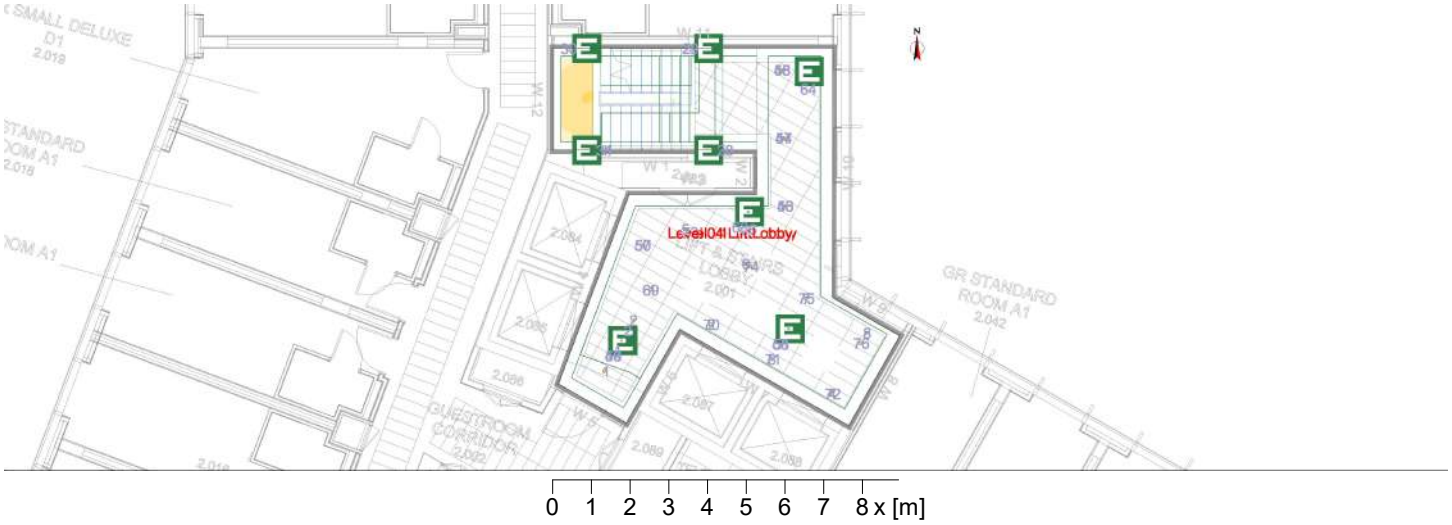
3.1 Summary, Stair Core 3

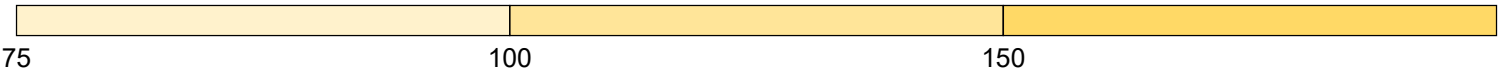
3.1.10 Result overview, Tread (v)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.11 Result overview, Landing (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.45 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	122 lx
Minimum illuminance	E_{min}	79 lx
Maximum illuminance	E_{max}	151 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.55 (0.65)
Diversity U_d	E_{min}/E_{max}	1:1.91 (0.52)

Type No.\Make

Chiara Lighting Limited

1 56 x



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

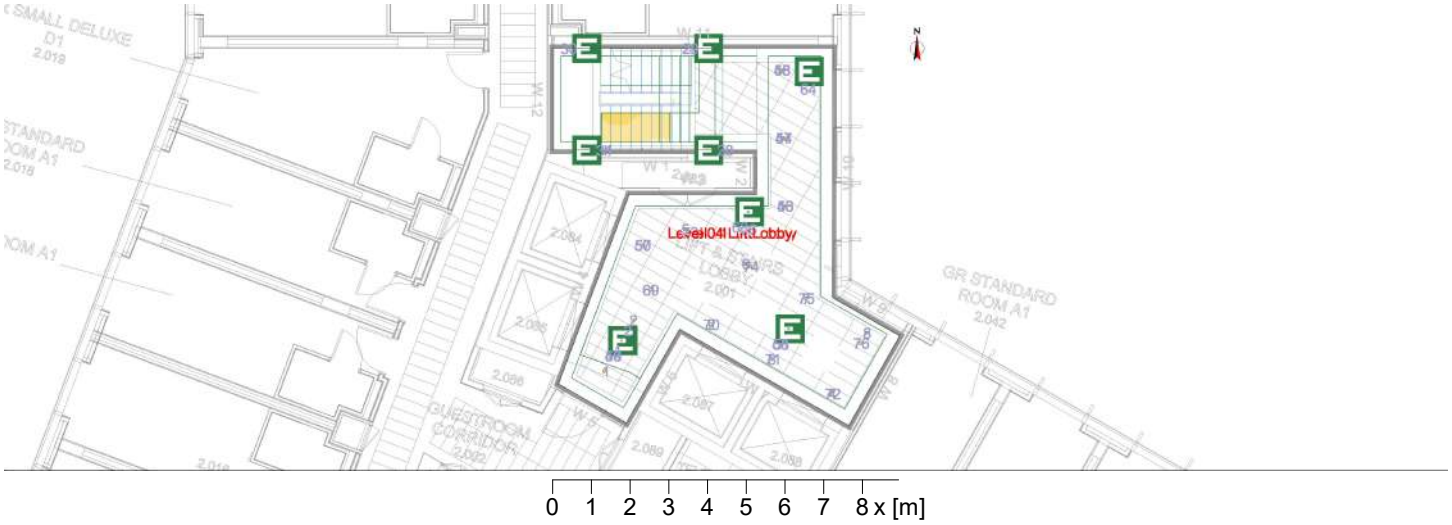
3.1 Summary, Stair Core 3

3.1.11 Result overview, Landing (iii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.12 Result overview, Tread (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	133 lx
Minimum illuminance	E_{min}	98 lx
Maximum illuminance	E_{max}	166 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.69 (0.59)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

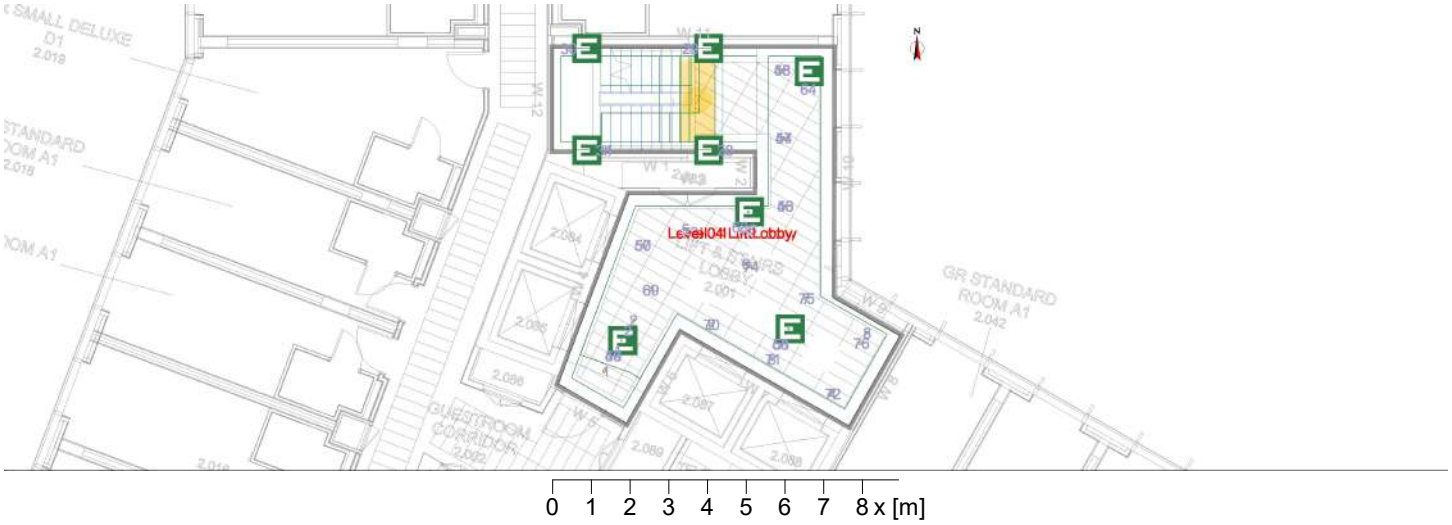
3.1 Summary, Stair Core 3

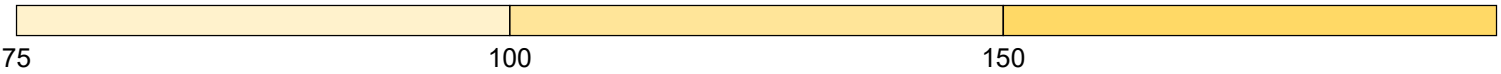
3.1.12 Result overview, Tread (vi)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.13 Result overview, Level 01M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	7.78 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	132 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.44 (0.7)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

Type No.\Make

1 56 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

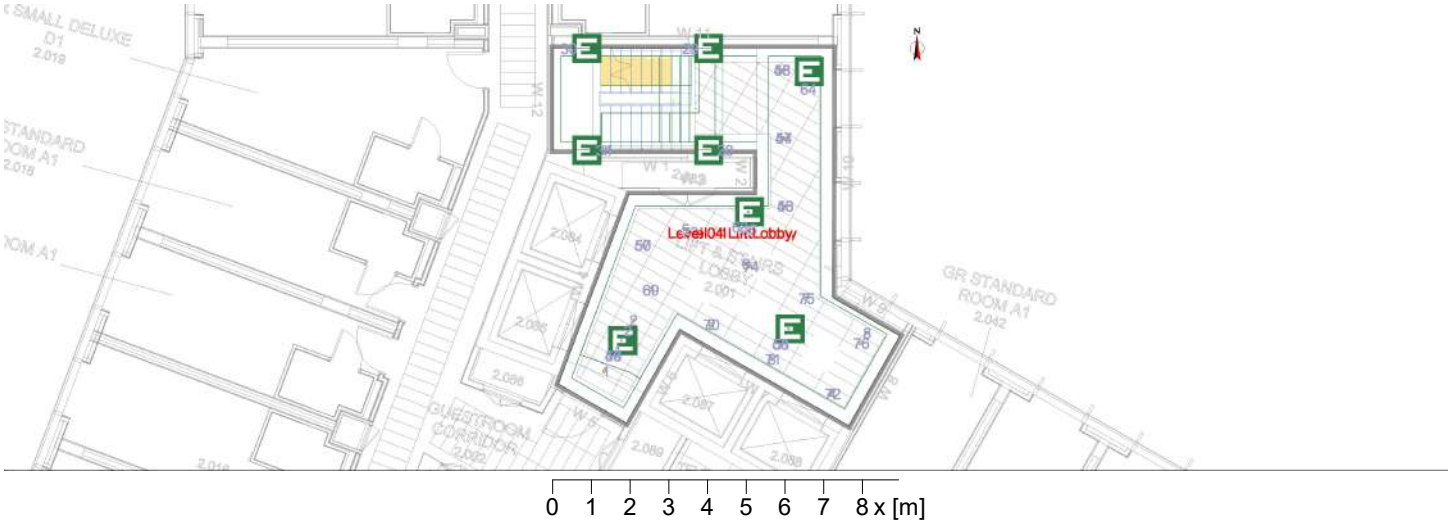
3.1 Summary, Stair Core 3

3.1.13 Result overview, Level 01M

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.14 Result overview, Tread (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	122 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.23 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.47 (0.68)

Type No.\Make

Chiara Lighting Limited

1 56 x



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

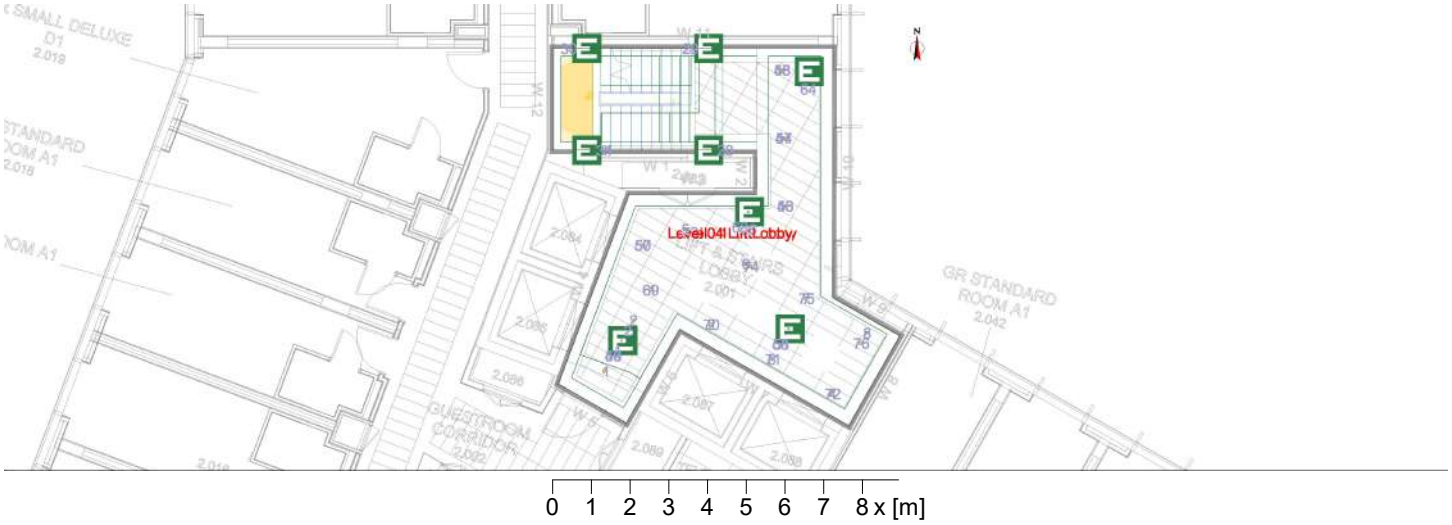
3.1 Summary, Stair Core 3

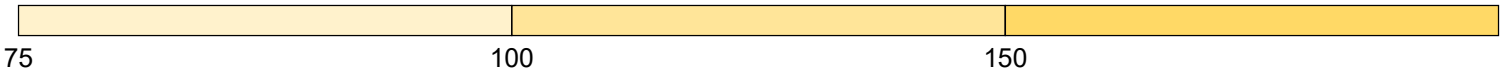
3.1.14 Result overview, Tread (vii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.15 Result overview, Landing (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.11 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	123 lx
Minimum illuminance	E_{min}	83 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.48 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.82 (0.55)

Type No.\Make

1 56 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

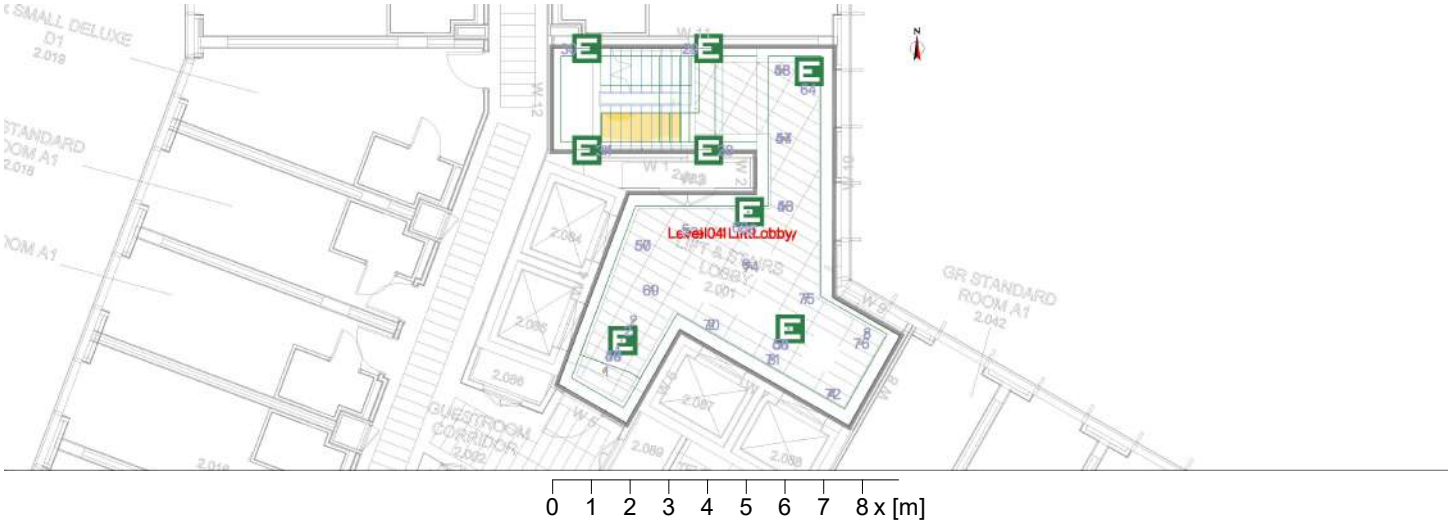
3.1 Summary, Stair Core 3

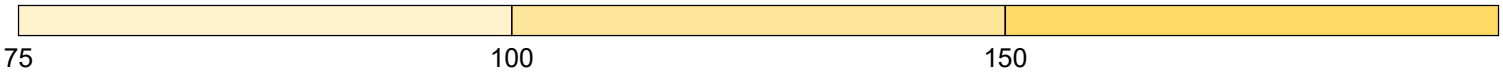
3.1.15 Result overview, Landing (iv)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.16 Result overview, Tread (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	123 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.73 (0.58)

Type No.\Make

1 56 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

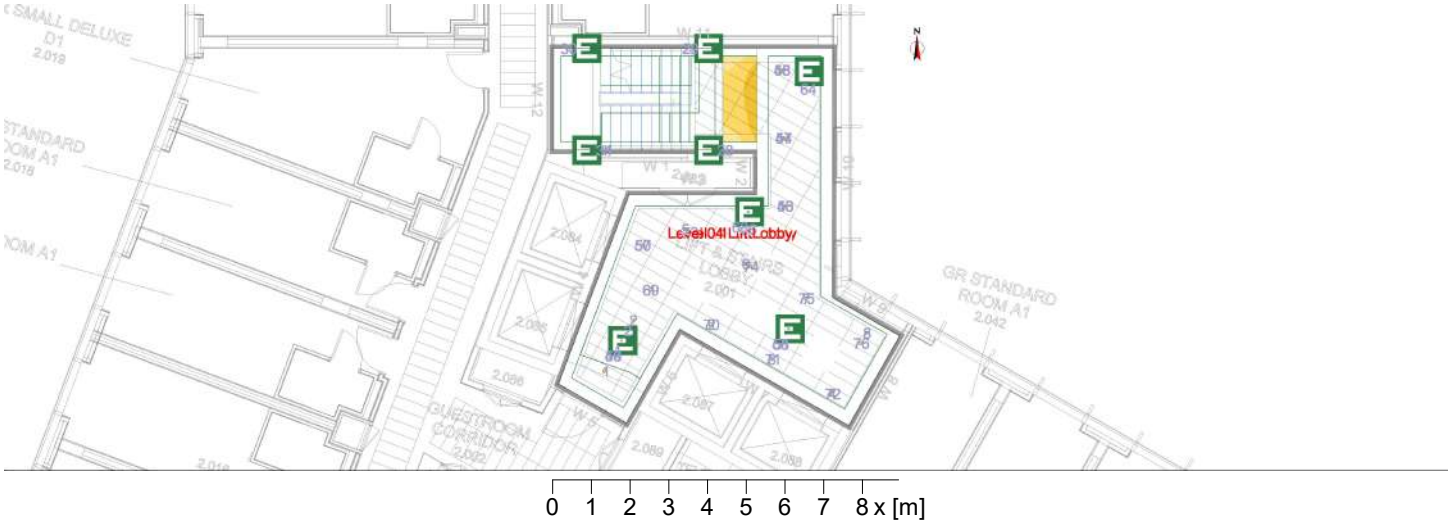
3.1 Summary, Stair Core 3

3.1.16 Result overview, Tread (viii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.17 Result overview, Level 02





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	174 lx
Minimum illuminance	E_{min}	120 lx
Maximum illuminance	E_{max}	215 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.44 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.79 (0.56)

Type No.\Make

Chiara Lighting Limited

1 56 x

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

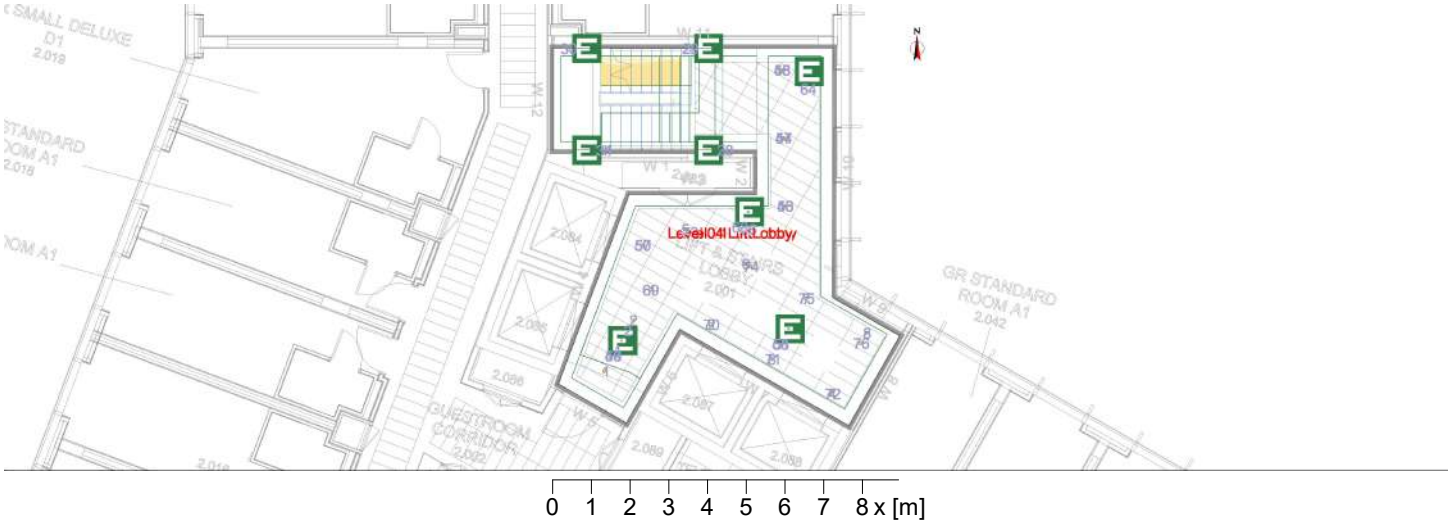
3.1 Summary, Stair Core 3

3.1.17 Result overview, Level 02

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.18 Result overview, Tread (ix)





75 100

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	113 lx
Minimum illuminance	E_{min}	90 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.26 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.63 (0.61)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

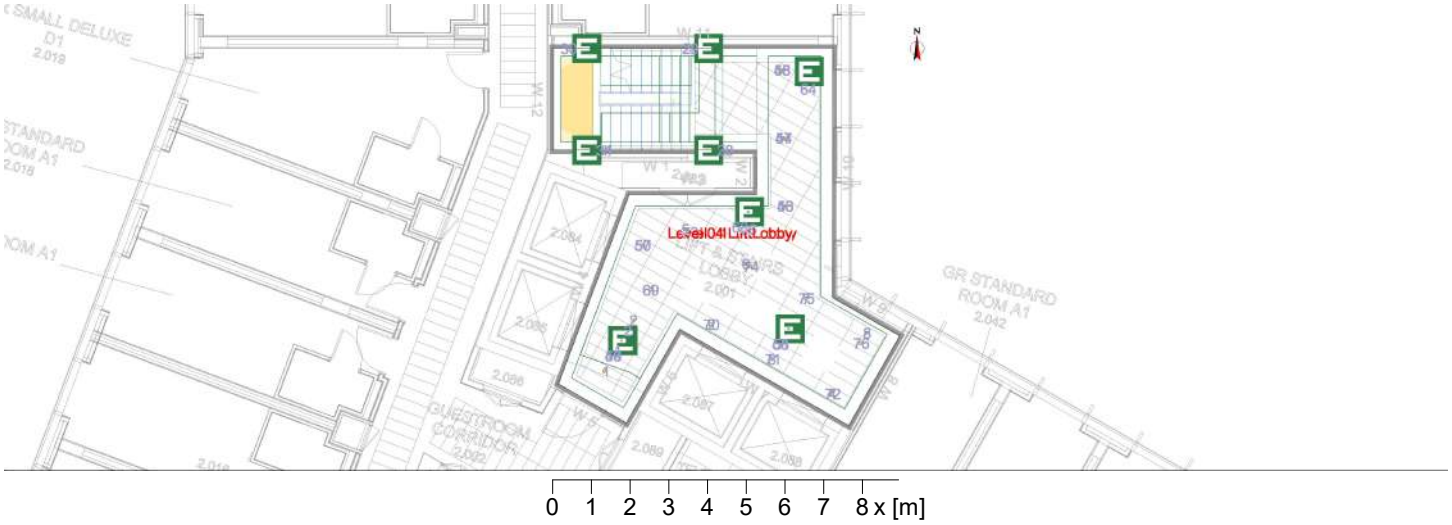
3.1 Summary, Stair Core 3

3.1.18 Result overview, Tread (ix)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.19 Result overview, Landing (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	12.11 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	121 lx
Minimum illuminance	E_{min}	84 lx
Maximum illuminance	E_{max}	147 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.44 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.75 (0.57)

Type No.\Make

Chiara Lighting Limited

1 56 x 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

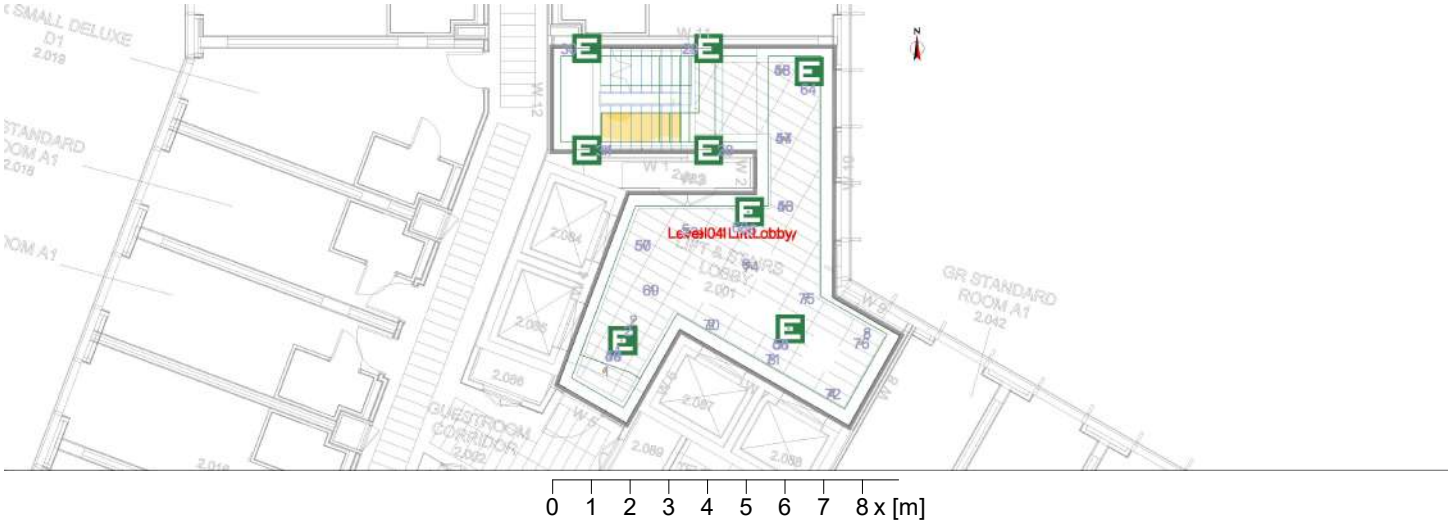
3.1 Summary, Stair Core 3

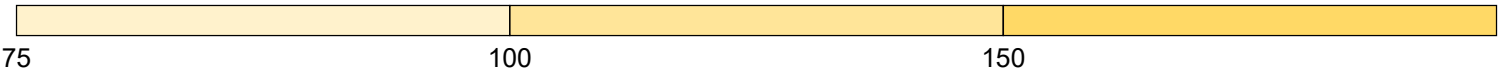
3.1.19 Result overview, Landing (v)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.20 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	123 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.72 (0.58)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

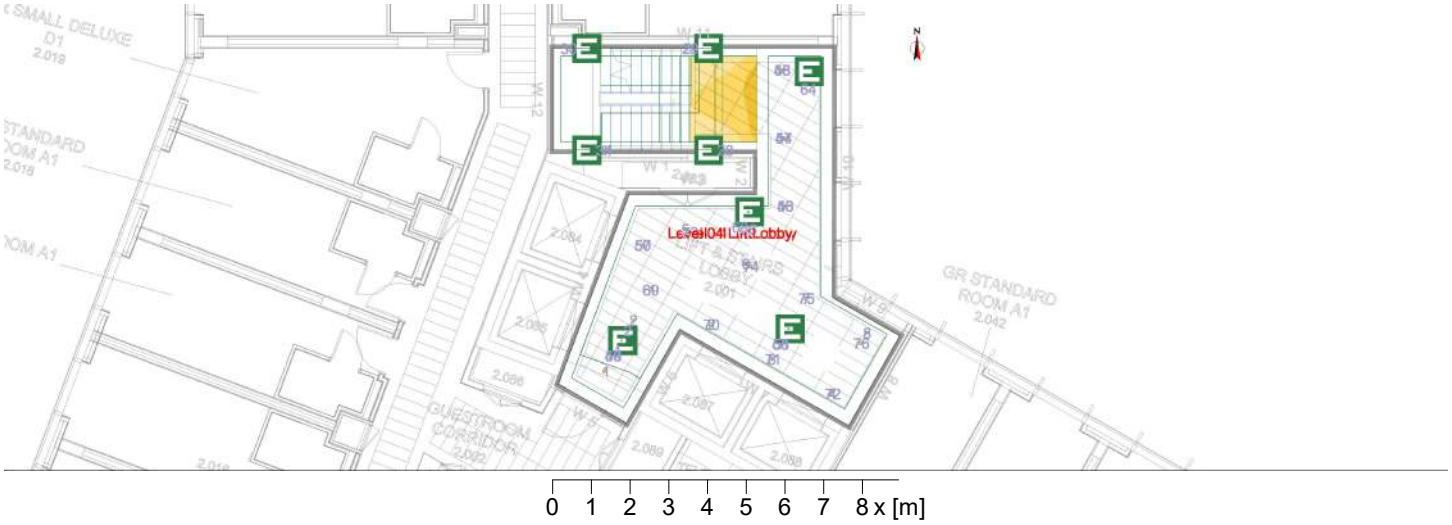
3.1 Summary, Stair Core 3

3.1.20 Result overview, Tread (x)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.21 Result overview, Level 03





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	159 lx
Minimum illuminance	E_{min}	104 lx
Maximum illuminance	E_{max}	213 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.53 (0.65)
Diversity U_d	E_{min}/E_{max}	1:2.06 (0.49)

Type No.\Make

1 56 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

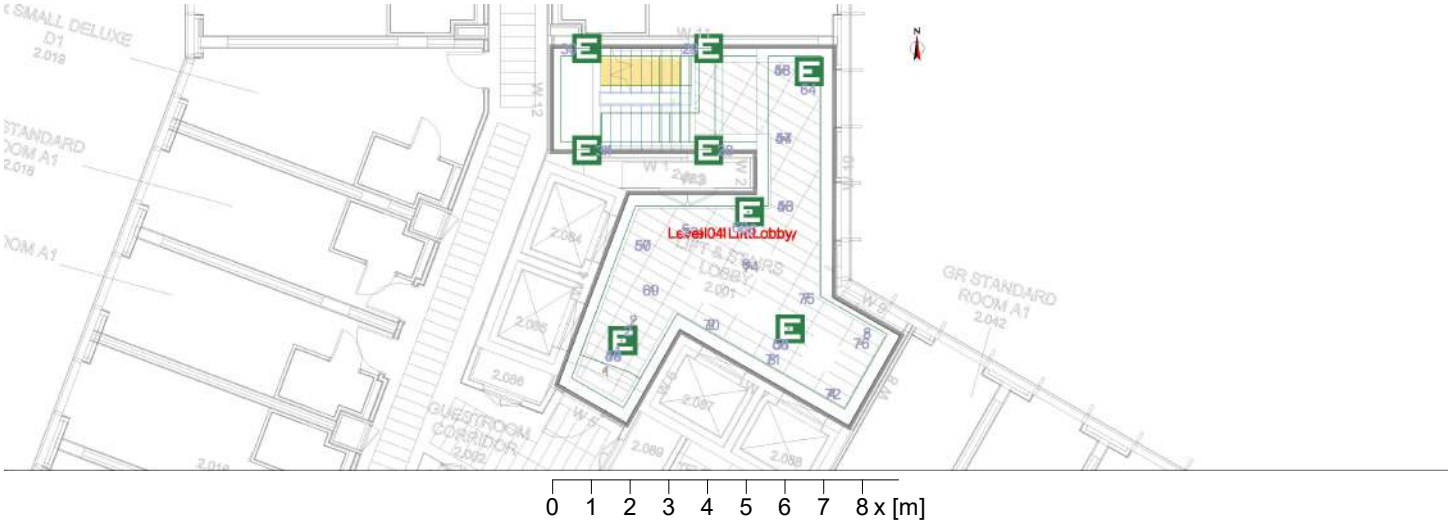
3.1 Summary, Stair Core 3

3.1.21 Result overview, Level 03

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.22 Result overview, Tread (xi)





75 100

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	120 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.64)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

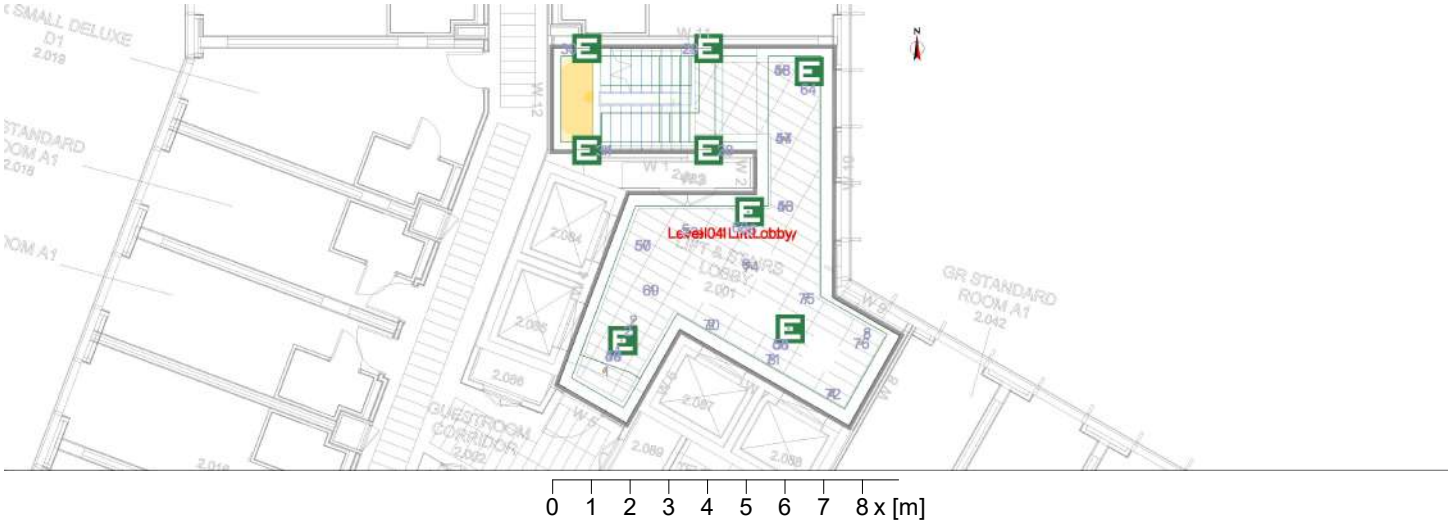
3.1 Summary, Stair Core 3

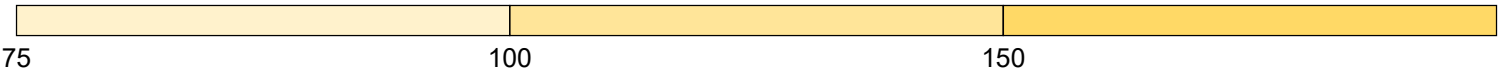
3.1.22 Result overview, Tread (xi)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.23 Result overview, Landing (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	15.11 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	124 lx
Minimum illuminance	E_{min}	85 lx
Maximum illuminance	E_{max}	151 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.45 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.77 (0.56)

Type No.\Make

1 56 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

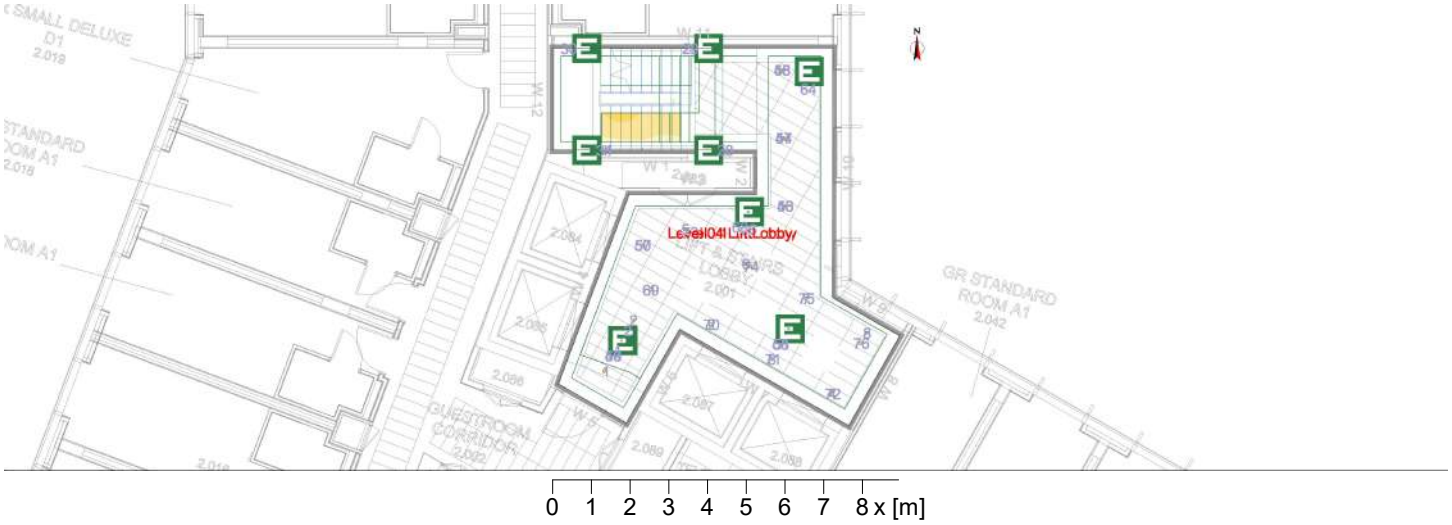
3.1 Summary, Stair Core 3

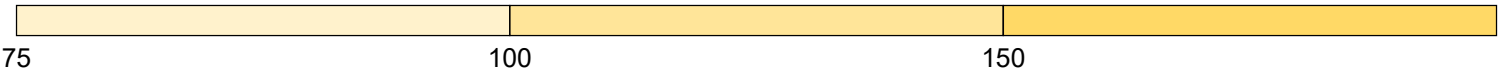
3.1.23 Result overview, Landing (vi)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.24 Result overview, Tread (xii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	122 lx
Minimum illuminance	E_{min}	90 lx
Maximum illuminance	E_{max}	160 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.77 (0.56)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

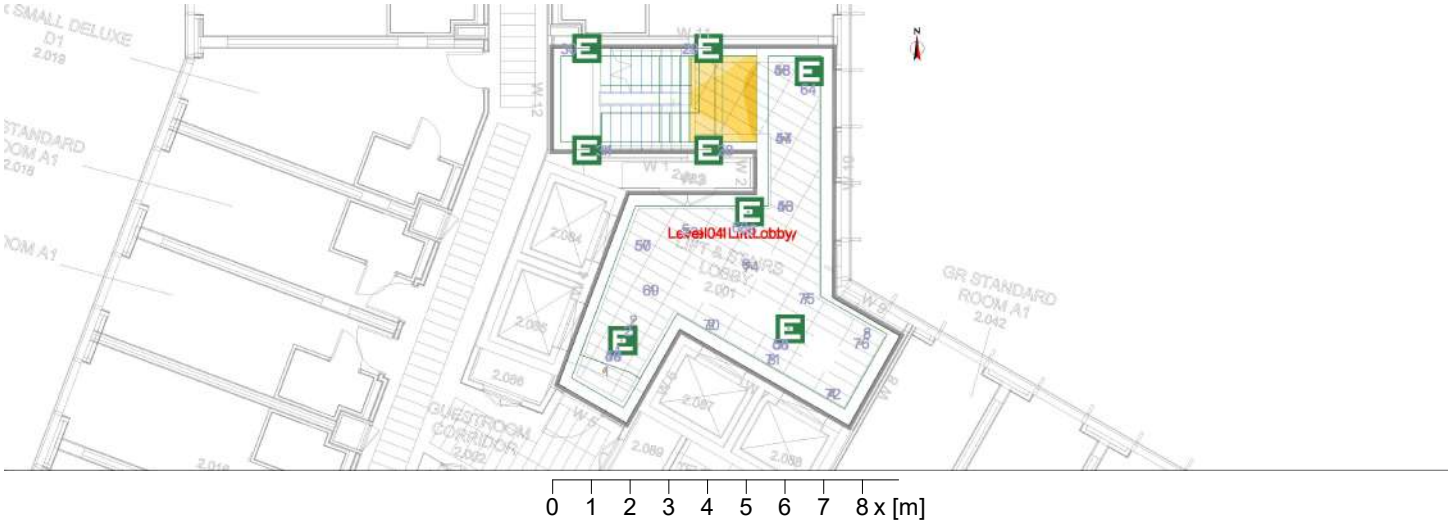
3.1 Summary, Stair Core 3

3.1.24 Result overview, Tread (xii)

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.25 Result overview, Level 04





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	160 lx
Minimum illuminance	E_{min}	111 lx
Maximum illuminance	E_{max}	214 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.45 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.93 (0.52)

Type No.\Make

1 56 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

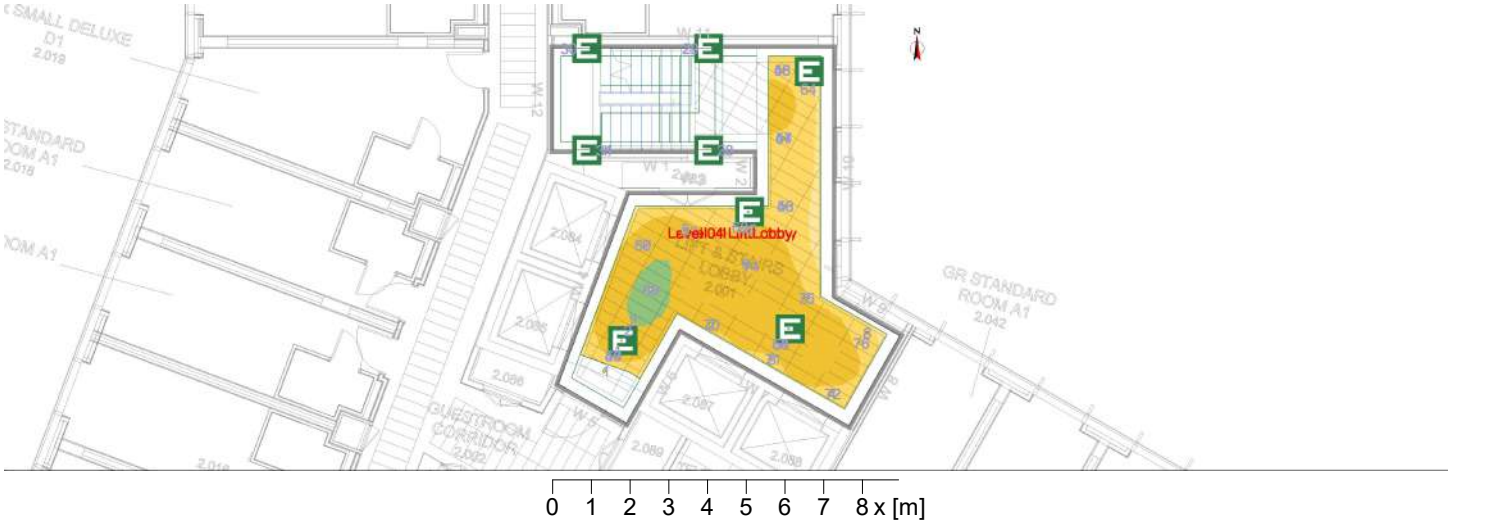
3.1 Summary, Stair Core 3

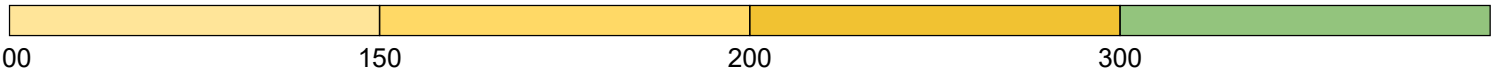
3.1.25 Result overview, Level 04

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.26 Result overview, Level 01 Lift Lobby





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	4.80 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	217 lx
Minimum illuminance	E_{min}	129 lx
Maximum illuminance	E_{max}	317 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.68 (0.6)
Diversity U_d	E_{min}/E_{max}	1:2.45 (0.41)

Type No.\Make

		Chiara Lighting Limited	
1	56 x	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

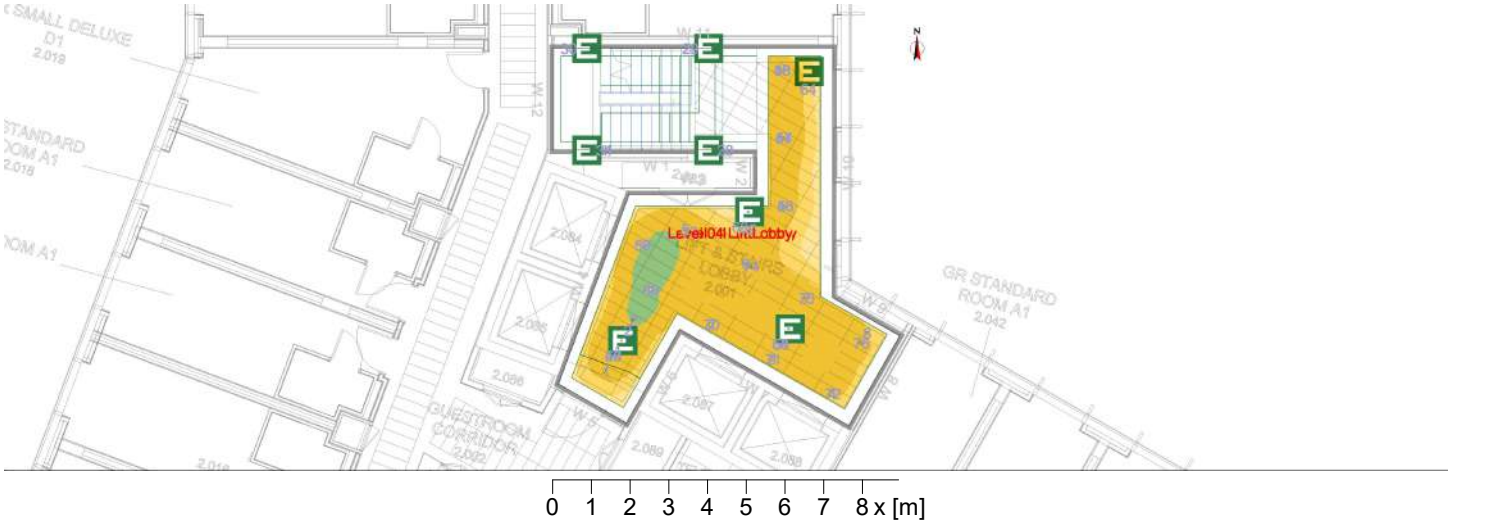
3.1 Summary, Stair Core 3

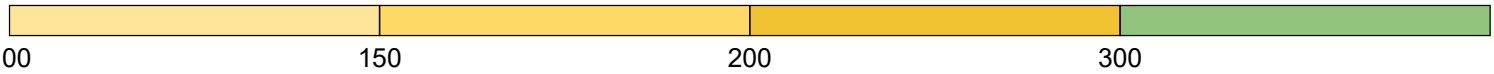
3.1.26 Result overview, Level 01 Lift Lobby

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.27 Result overview, Level 02 Lift Lobby





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	10.60 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	224 lx
Minimum illuminance	E_{min}	113 lx
Maximum illuminance	E_{max}	345 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.99 (0.5)
Diversity U_d	E_{min}/E_{max}	1:3.07 (0.33)

Type No.\Make

Chiara Lighting Limited

1 56 x 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

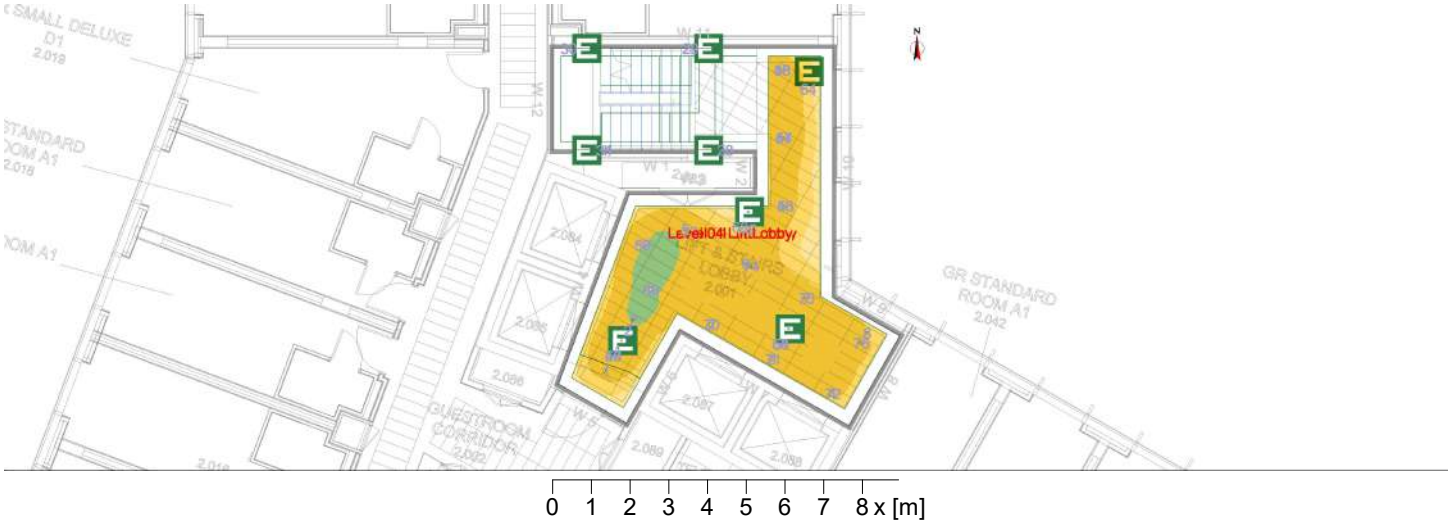
3.1 Summary, Stair Core 3

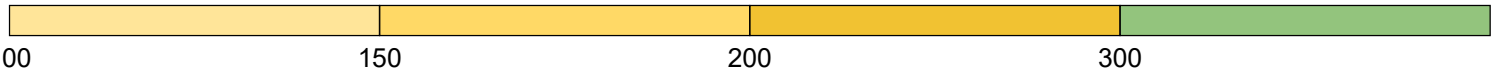
3.1.27 Result overview, Level 02 Lift Lobby

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.28 Result overview, Level 03 Lift Lobby





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	13.60 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	224 lx
Minimum illuminance	E_{min}	112 lx
Maximum illuminance	E_{max}	345 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2 (0.5)
Diversity U_d	E_{min}/E_{max}	1:3.08 (0.32)

Type No.\Make

Chiara Lighting Limited

1 56 x
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

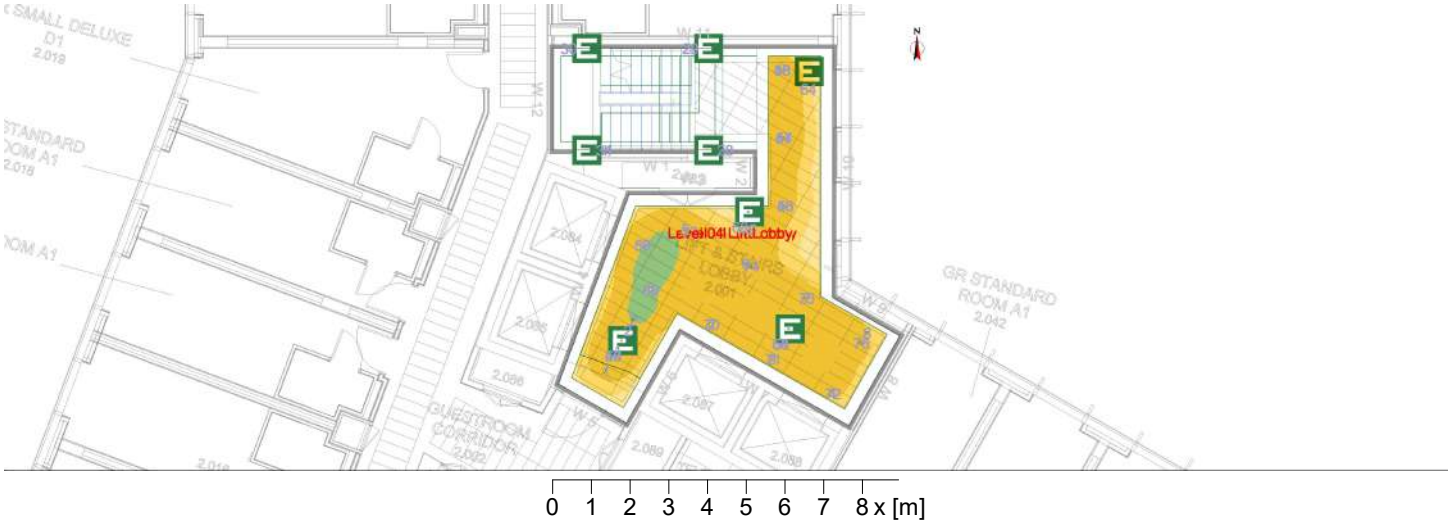
3.1 Summary, Stair Core 3

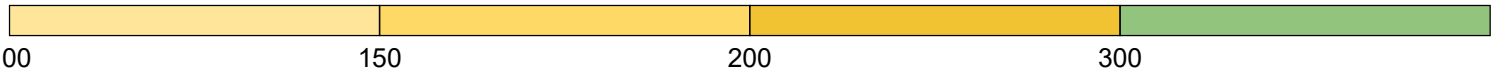
3.1.28 Result overview, Level 03 Lift Lobby

		Thorn	
2	26E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.29 Result overview, Level 04 Lift Lobby





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	16.60 m
Maintenance factor	0.80
Total luminous flux	98684 lm
Total power	1127.2 W
Total power per area (53.90 m²)	20.91 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	222 lx
Minimum illuminance	E_{min}	111 lx
Maximum illuminance	E_{max}	343 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.01 (0.5)
Diversity U_d	E_{min}/E_{max}	1:3.1 (0.32)

Type No.\Make

Chiara Lighting Limited

1 56 x 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

3.1 Summary, Stair Core 3

3.1.29 Result overview, Level 04 Lift Lobby

Thorn

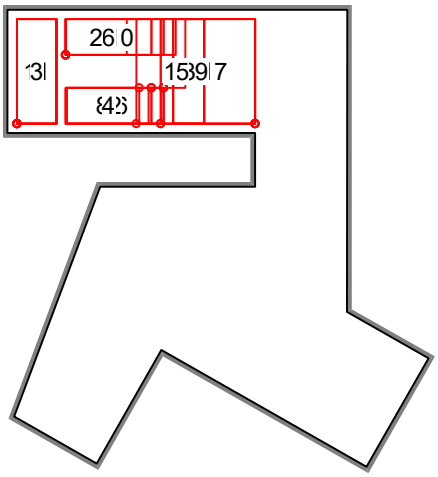
2 26E x



Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

3.1 Summary, Stair Core 3

3.1.30 Result overview, Stair Ref Planes (1)



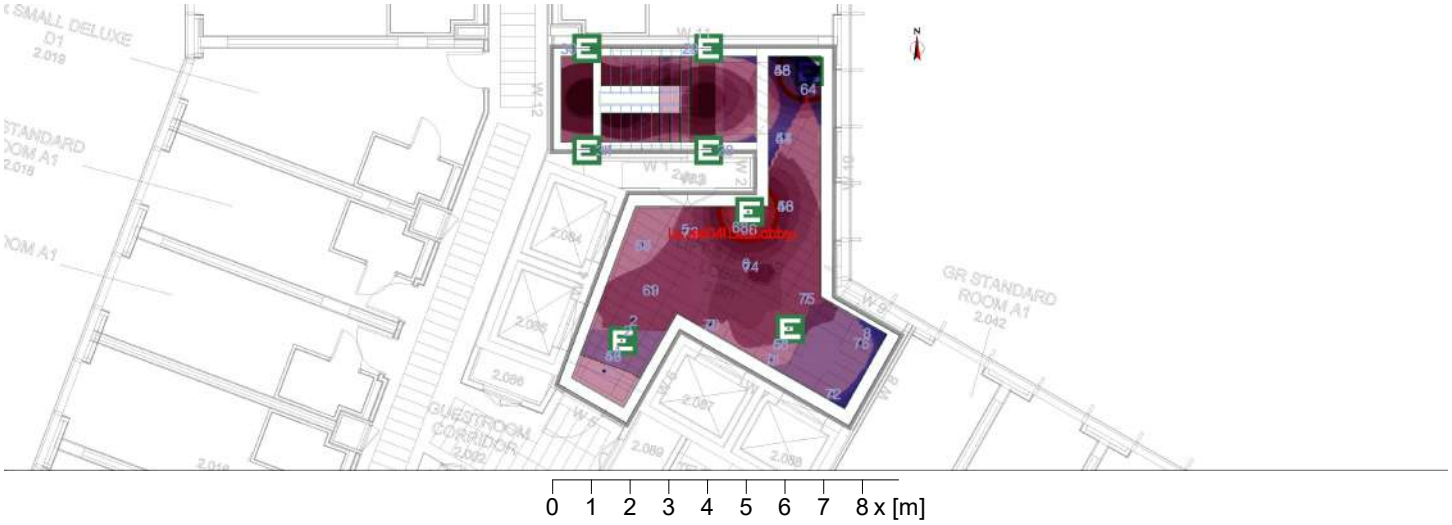
Illuminance

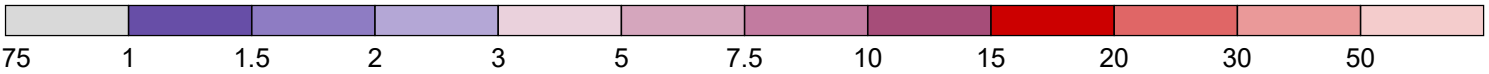
No.	Measuring surface	Grid	$\bar{E}_m$	E_{min}	E_{max}	U_o	U_d
1.1	Level 00	4 x 6	132 lx	95 lx	167 lx	0.72	0.57
1.2	Tread (i)	9 x 5	111 lx	92 lx	135 lx	0.83	0.68
1.3	Landing (i)	5 x 13	129 lx	91 lx	156 lx	0.71	0.58
1.4	Tread (ii)	13 x 5	131 lx	100 lx	163 lx	0.76	0.61
1.5	Level 00M	5 x 12	140 lx	94 lx	168 lx	0.67	0.56
1.6	Tread (iii)	13 x 5	116 lx	90 lx	146 lx	0.77	0.62
1.7	Landing (ii)	5 x 13	118 lx	75 lx	147 lx	0.64	0.51
1.8	Tread (iv)	11 x 5	125 lx	93 lx	156 lx	0.74	0.60
1.9	Level 01	6 x 6	155 lx	103 lx	205 lx	0.67	0.50
1.10	Tread (v)	17 x 5	111 lx	83 lx	147 lx	0.75	0.57
1.11	Landing (iii)	5 x 13	122 lx	79 lx	151 lx	0.65	0.52
1.12	Tread (vi)	13 x 5	133 lx	98 lx	166 lx	0.74	0.59
1.13	Level 01M	5 x 12	132 lx	92 lx	157 lx	0.70	0.59
1.14	Tread (vii)	13 x 5	122 lx	99 lx	146 lx	0.81	0.68
1.15	Landing (iv)	5 x 13	123 lx	83 lx	152 lx	0.67	0.55
1.16	Tread (viii)	15 x 5	123 lx	91 lx	158 lx	0.74	0.58
1.17	Level 02	5 x 6	174 lx	120 lx	215 lx	0.69	0.56
1.18	Tread (ix)	15 x 5	113 lx	90 lx	146 lx	0.79	0.61
1.19	Landing (v)	5 x 13	121 lx	84 lx	147 lx	0.69	0.57
1.20	Tread (x)	15 x 5	123 lx	92 lx	158 lx	0.75	0.58
1.21	Level 03	5 x 6	159 lx	104 lx	213 lx	0.65	0.49
1.22	Tread (xi)	15 x 5	120 lx	96 lx	149 lx	0.80	0.64
1.23	Landing (vi)	5 x 13	124 lx	85 lx	151 lx	0.69	0.56
1.24	Tread (xii)	15 x 5	122 lx	90 lx	160 lx	0.74	0.56
1.25	Level 04	5 x 6	160 lx	111 lx	214 lx	0.69	0.52
Summary			**135 lx**	**75 lx**	**215 lx**	**0.56**	**0.35**

3 Stair Core 3

3.2 Summary, Stair Core 3

3.2.1.1 Result overview (emergency lighting)



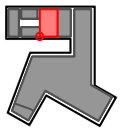


General

Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 600 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
1 Level 00			
Calculation field: 1.44m x 2.22m (4 x 6 pts), Height = 0.00m			
1	2.23 lx	8.34 lx	1: 3.74
	>= 1 lx		>= 1 : 40
2 Tread (i)			
Calculation field: 1.53m x 0.76m (9 x 5 pts), Height = 0.99m			
2	3.05 lx	7.80 lx	1: 2.56
	>= 1 lx		>= 1 : 40
3 Landing (i)			
Calculation field: 0.84m x 2.22m (5 x 13 pts), Height = 1.00m			
3	2.78 lx	8.59 lx	1: 3.09
	>= 1 lx		>= 1 : 40







3 Stair Core 3

3.2 Summary, Stair Core 3

3.2.1.1 Result overview (emergency lighting)

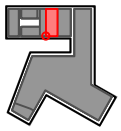
4 Tread (ii)
Calculation field: 2.15m x 0.76m (13 x 5 pts), Height = 2.32m

4	3.50 lx	9.61 lx	1: 2.75
	>= 1 lx		>= 1 : 40



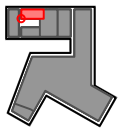
5 Level 00M
Calculation field: 0.92m x 2.22m (5 x 12 pts), Height = 2.32m

5	2.70 lx	8.48 lx	1: 3.13
	>= 1 lx		>= 1 : 40



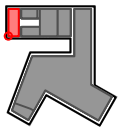
6 Tread (iii)
Calculation field: 2.15m x 0.76m (13 x 5 pts), Height = 3.64m

6	3.00 lx	7.74 lx	1: 2.58
	>= 1 lx		>= 1 : 40



7 Landing (ii)
Calculation field: 0.84m x 2.22m (5 x 13 pts), Height = 3.64m

7	2.95 lx	8.71 lx	1: 2.96
	>= 1 lx		>= 1 : 40



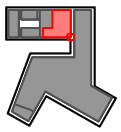
8 Tread (iv)
Calculation field: 1.84m x 0.76m (11 x 5 pts), Height = 4.80m

8	3.31 lx	9.64 lx	1: 2.91
	>= 1 lx		>= 1 : 40



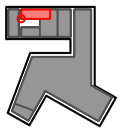
9 Level 01
Calculation field: 2.26m x 2.22m (6 x 6 pts), Height = 4.80m

9	3.14 lx	9.85 lx	1: 3.13
	>= 1 lx		>= 1 : 40



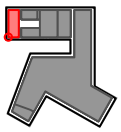
10 Tread (v)
Calculation field: 2.76m x 0.76m (17 x 5 pts), Height = 6.46m

10	3.71 lx	12.03 lx	1: 3.24
	>= 1 lx		>= 1 : 40



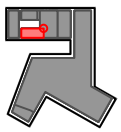
11 Landing (iii)
Calculation field: 0.84m x 2.22m (5 x 13 pts), Height = 6.46m

11	2.78 lx	8.40 lx	1: 3.02
	>= 1 lx		>= 1 : 40



12 Tread (vi)
Calculation field: 2.15m x 0.76m (13 x 5 pts), Height = 7.78m

12	3.50 lx	9.64 lx	1: 2.75
	>= 1 lx		>= 1 : 40



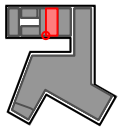
3 Stair Core 3

3.2 Summary, Stair Core 3

3.2.1.1 Result overview (emergency lighting)

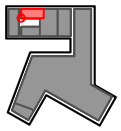
13 Level 01M
Calculation field: 0.92m x 2.22m (5 x 12 pts), Height = 7.78m

13	2.71 lx	8.48 lx	1: 3.13
	>= 1 lx		>= 1 : 40



14 Tread (vii)
Calculation field: 2.15m x 0.76m (13 x 5 pts), Height = 9.11m

14	3.00 lx	7.65 lx	1: 2.55
	>= 1 lx		>= 1 : 40



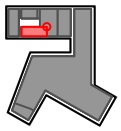
15 Landing (iv)
Calculation field: 0.84m x 2.22m (5 x 13 pts), Height = 9.11m

15	2.78 lx	8.59 lx	1: 3.09
	>= 1 lx		>= 1 : 40



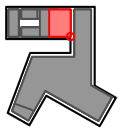
16 Tread (viii)
Calculation field: 2.43m x 0.76m (15 x 5 pts), Height = 10.60m

16	3.33 lx	9.67 lx	1: 2.90
	>= 1 lx		>= 1 : 40



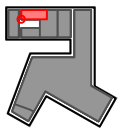
17 Level 02
Calculation field: 1.74m x 2.22m (5 x 6 pts), Height = 10.60m

17	2.20 lx	7.74 lx	1: 3.52
	>= 1 lx		>= 1 : 40



18 Tread (ix)
Calculation field: 2.45m x 0.76m (15 x 5 pts), Height = 12.11m

18	3.24 lx	8.49 lx	1: 2.62
	>= 1 lx		>= 1 : 40



19 Landing (v)
Calculation field: 0.84m x 2.22m (5 x 13 pts), Height = 12.11m

19	2.93 lx	8.44 lx	1: 2.88
	>= 1 lx		>= 1 : 40



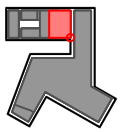
20 Tread (x)
Calculation field: 2.43m x 0.76m (15 x 5 pts), Height = 13.60m

20	3.46 lx	9.79 lx	1: 2.83
	>= 1 lx		>= 1 : 40



21 Level 03
Calculation field: 1.74m x 2.22m (5 x 6 pts), Height = 13.60m

21	2.20 lx	8.41 lx	1: 3.82
	>= 1 lx		>= 1 : 40



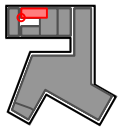
3 Stair Core 3

3.2 Summary, Stair Core 3

3.2.1.1 Result overview (emergency lighting)

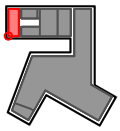
22 Tread (xi)
Calculation field: 2.45m x 0.76m (15 x 5 pts), Height = 15.11m

22	3.24 lx	8.49 lx	1: 2.62
	>= 1 lx		>= 1 : 40



23 Landing (vi)
Calculation field: 0.84m x 2.22m (5 x 13 pts), Height = 15.11m

23	3.10 lx	8.75 lx	1: 2.82
	>= 1 lx		>= 1 : 40



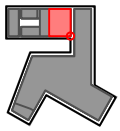
24 Tread (xii)
Calculation field: 2.43m x 0.76m (15 x 5 pts), Height = 16.60m

24	2.99 lx	9.96 lx	1: 3.33
	>= 1 lx		>= 1 : 40



25 Level 04
Calculation field: 1.74m x 2.22m (5 x 6 pts), Height = 16.60m

25	2.16 lx	8.22 lx	1: 3.80
	>= 1 lx		>= 1 : 40



26 Level 01 Lift Lobby
Calculation field: 7.92m x 9.09m (23 x 25 pts), Height = 4.80m

26	1.68 lx	54.96 lx	1: 32.70
	>= 0.5 lx		>= 1 : 40



27 Level 02 Lift Lobby
Calculation field: 8.15m x 9.09m (24 x 26 pts), Height = 10.60m

27	0.81 lx	7.64 lx	1: 9.42
	>= 0.5 lx		>= 1 : 40



28 Level 03 Lift Lobby
Calculation field: 8.15m x 9.09m (24 x 26 pts), Height = 13.60m

28	0.81 lx	7.62 lx	1: 9.39
	>= 0.5 lx		>= 1 : 40



29 Level 04 Lift Lobby
Calculation field: 8.15m x 9.09m (24 x 26 pts), Height = 16.60m

29	0.81 lx	7.62 lx	1: 9.45
	>= 0.5 lx		>= 1 : 40



Places to highlight

No.	Surface Emin [lx]	Emax [lx]

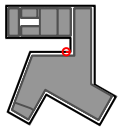
3 Stair Core 3

3.2 Summary, Stair Core 3

3.2.1.1 Result overview (emergency lighting)

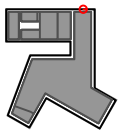
1 Level 01 Call Point (i)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

1	11.99 lx	14.10 lx
	>= 5 lx	



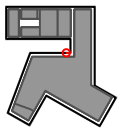
2 Level 01 Call Point (ii)
Calculation field: 0.2m x 0.2m (3 x 3 pts)

2	8.27 lx	9.79 lx
	>= 5 lx	



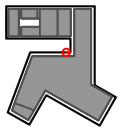
3 Level 02 Call Point
Calculation field: 0.2m x 0.2m (3 x 3 pts)

3	6.69 lx	9.05 lx
	>= 5 lx	



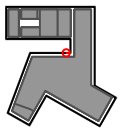
4 Level 03 Call Point
Calculation field: 0.2m x 0.2m (3 x 3 pts)

4	6.79 lx	9.40 lx
	>= 5 lx	



5 Level 04 Call Point
Calculation field: 0.2m x 0.2m (3 x 3 pts)

5	6.79 lx	9.40 lx
	>= 5 lx	



Type No.\Make

Thorn
2 26E x
Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

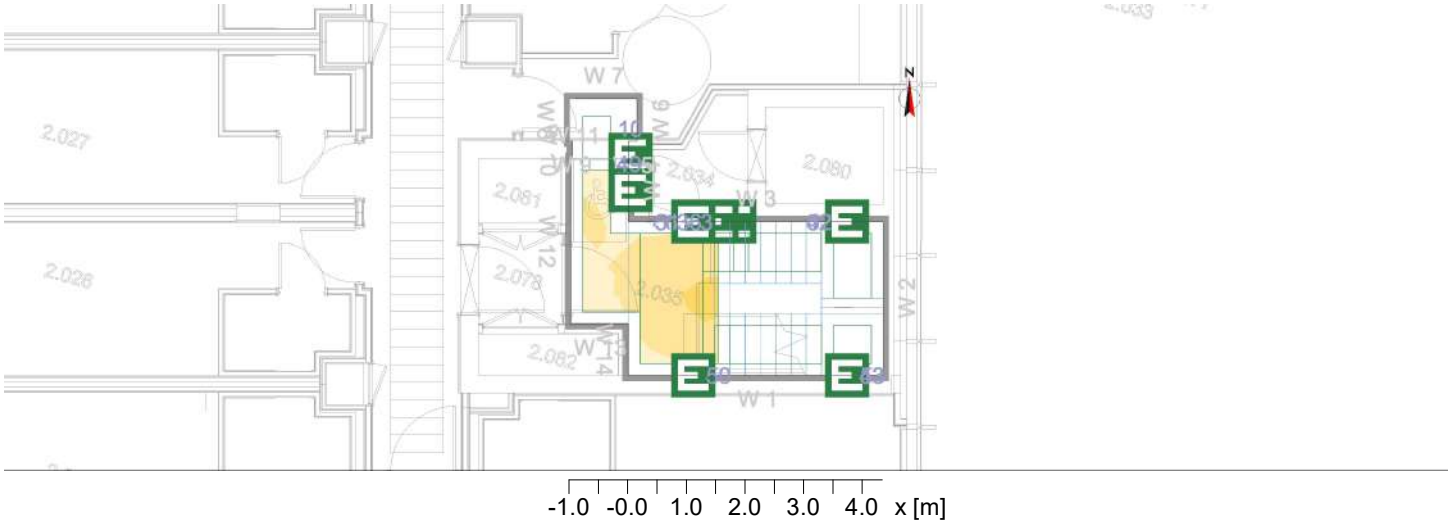
Tridonic
3 11E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Anti Panic (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 217 lm (0%)
Emergency : 217 lm

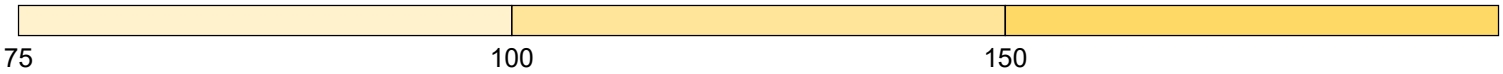
5 2E x
Order No. : ! -- Emergency Lighting --
Luminaire name : 2W Emphasis (Recessed)
Equipment : 1 x EM R2A 2W 1 W / 206 lm (0%)
Emergency : 206 lm

4 Stair Core 4

4.1 Summary, Stair Core 4

4.1.1 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	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

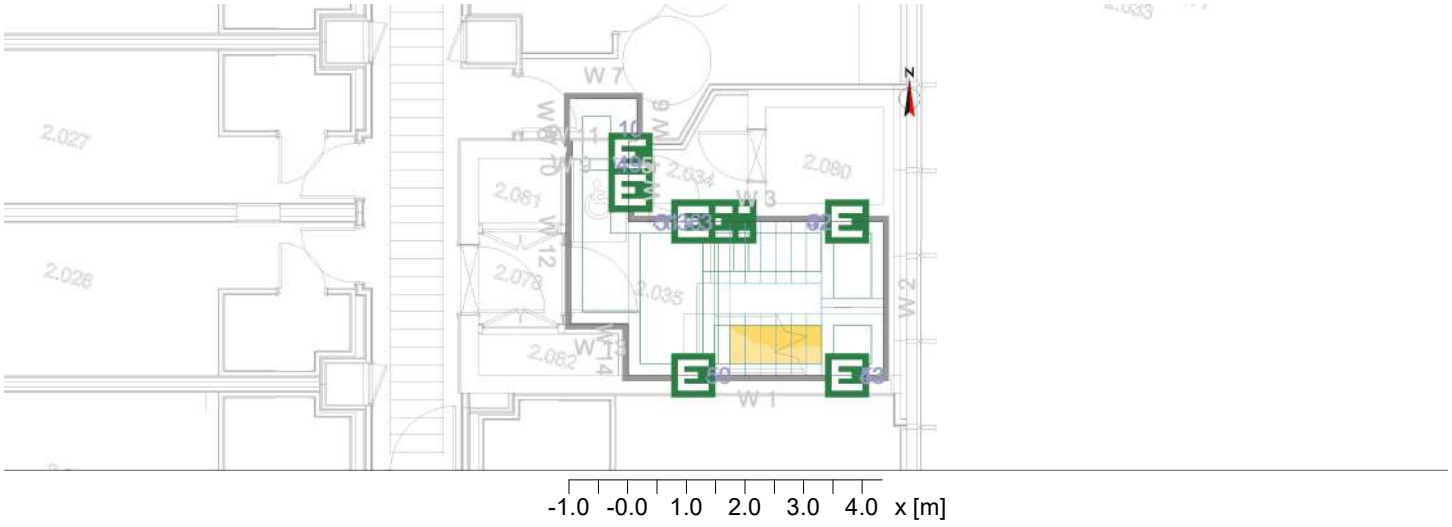
Average illuminance	$\bar{E}_m$	118 lx
Minimum illuminance	E_{min}	89 lx
Maximum illuminance	E_{max}	159 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.79 (0.56)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.2 Result overview, Tread (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

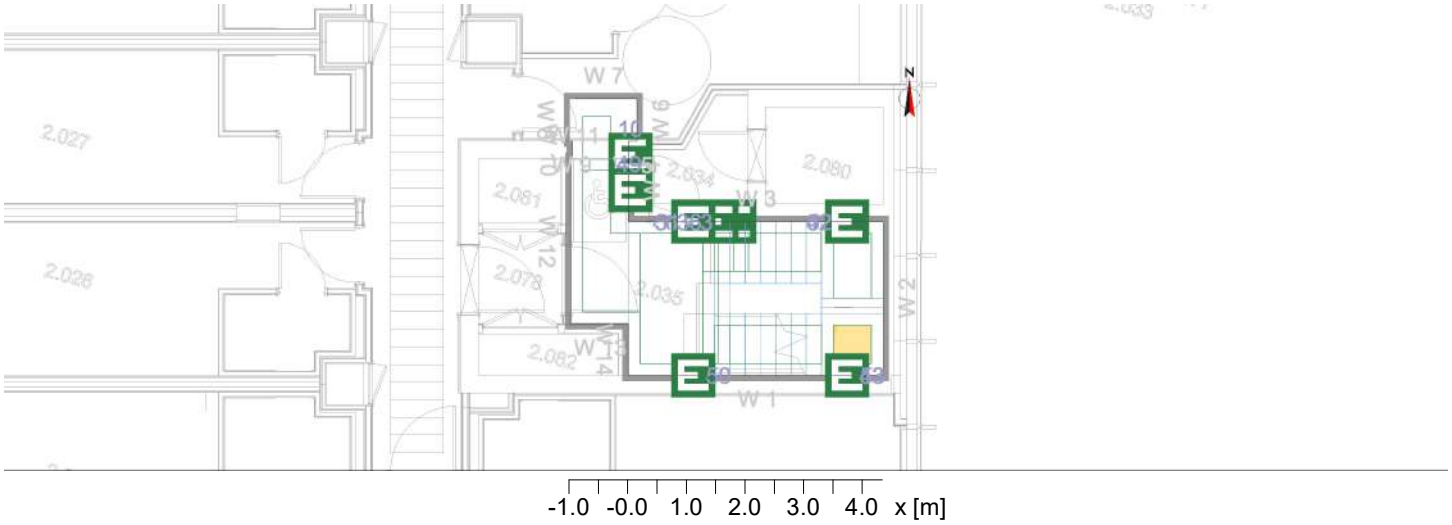
Average illuminance	$\bar{E}_m$	147 lx
Minimum illuminance	E_{min}	111 lx
Maximum illuminance	E_{max}	173 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.64)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.3 Result overview, Quarter Landing (i)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.15 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

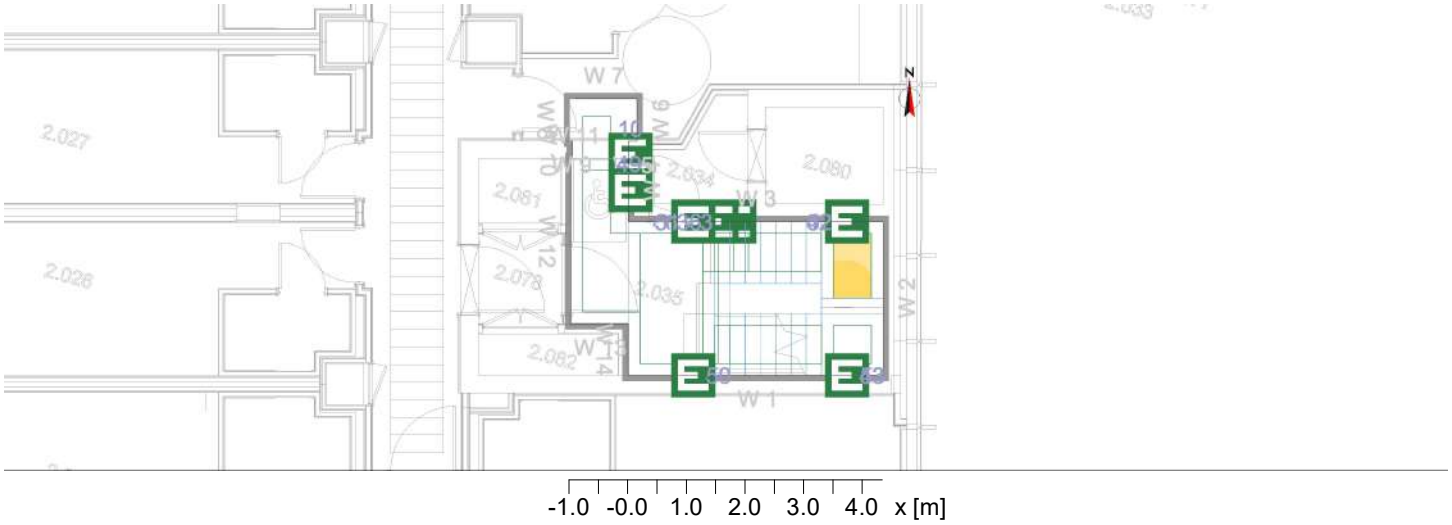
Average illuminance	$\bar{E}_m$	129 lx
Minimum illuminance	E_{min}	104 lx
Maximum illuminance	E_{max}	149 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.44 (0.7)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.4 Result overview, Quarter Landing (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.48 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

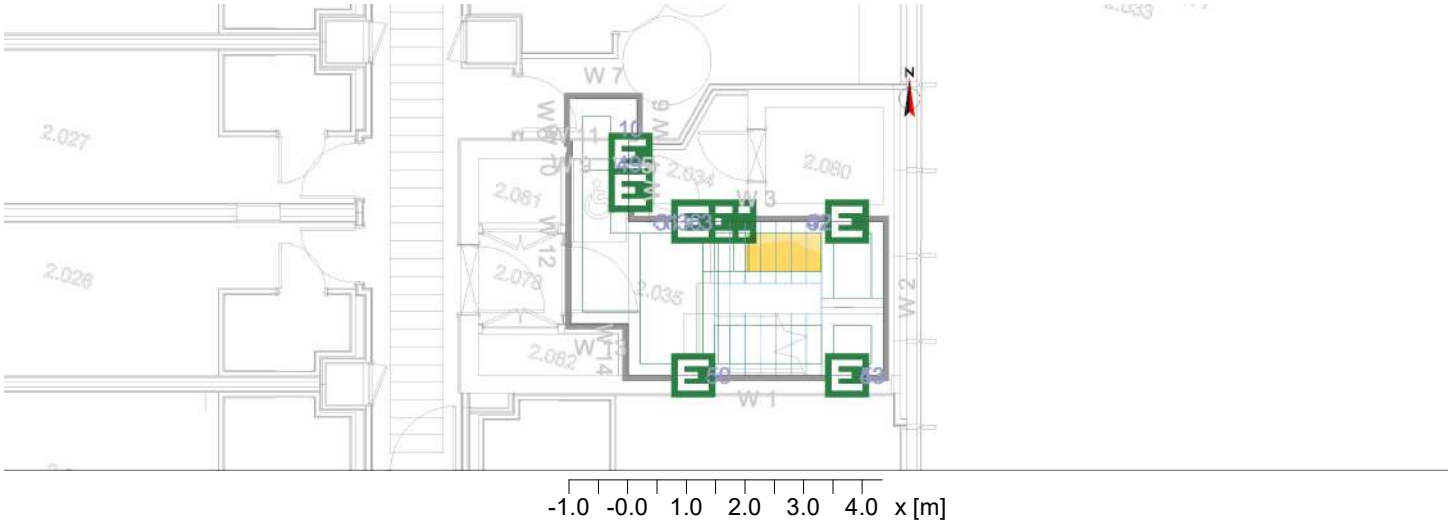
Average illuminance	$\bar{E}_m$	151 lx
Minimum illuminance	E_{min}	114 lx
Maximum illuminance	E_{max}	184 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.5 Result overview, Tread (ii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

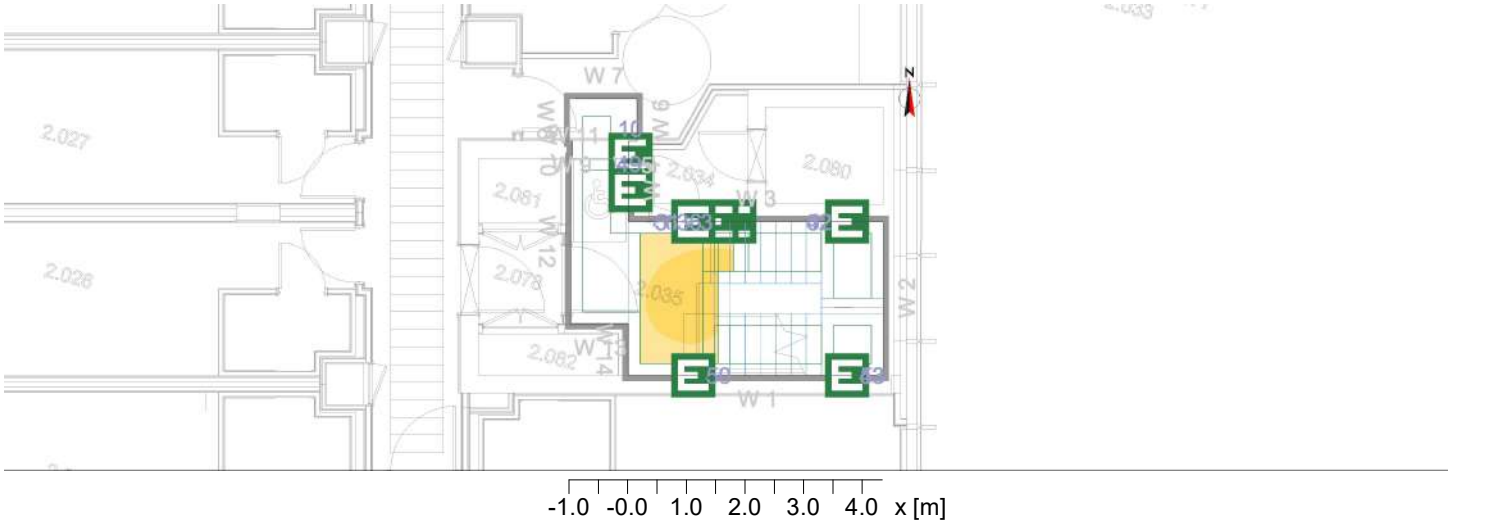
Average illuminance	$\bar{E}_m$	163 lx
Minimum illuminance	E_{min}	120 lx
Maximum illuminance	E_{max}	197 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.74)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.6 Result overview, Level 00M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

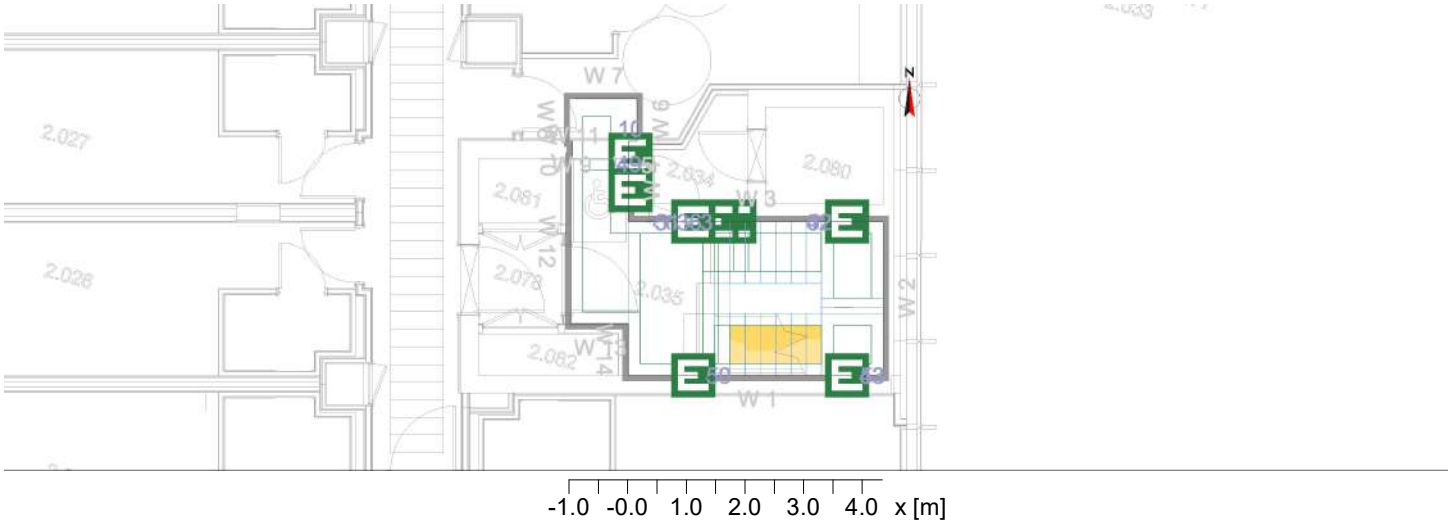
Average illuminance	$\bar{E}_m$	155 lx
Minimum illuminance	E_{min}	120 lx
Maximum illuminance	E_{max}	183 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.65)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.7 Result overview, Tread (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	148 lx
Minimum illuminance	E_{min}	122 lx
Maximum illuminance	E_{max}	167 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.21 (0.83)
Diversity U_d	E_{min}/E_{max}	1:1.37 (0.73)

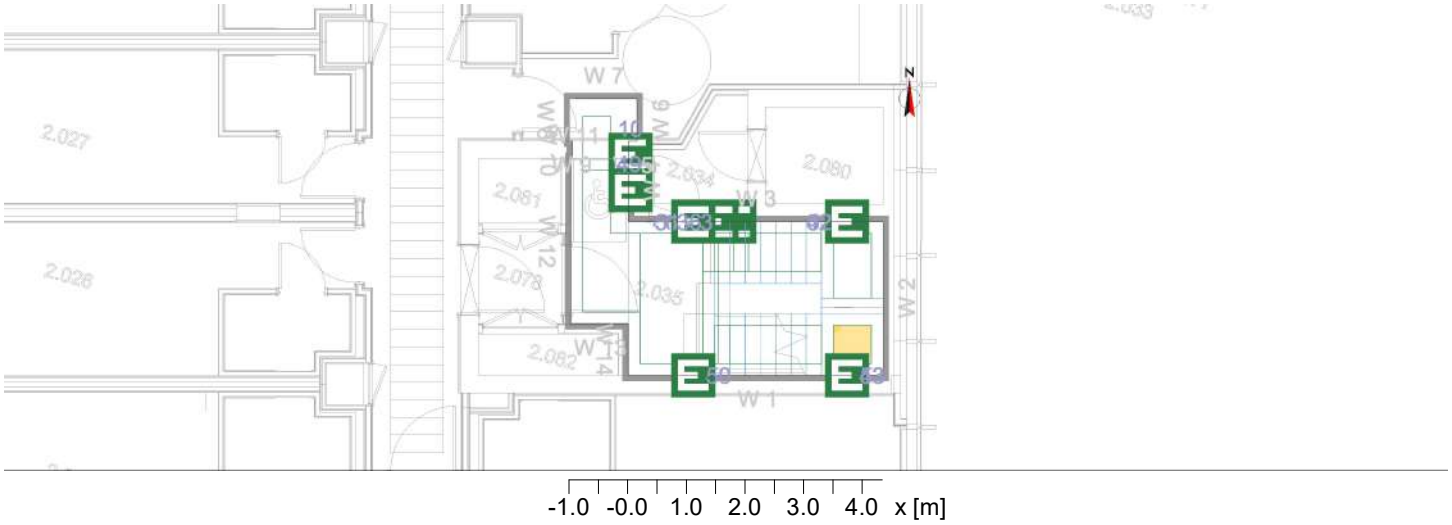
Type No.\Make

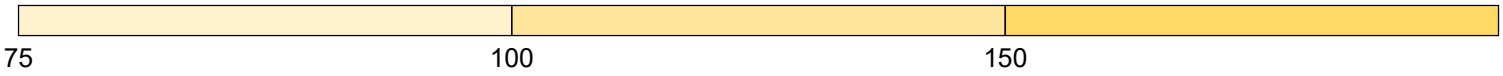
Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.8 Result overview, Quarter Landing (iii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.62 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

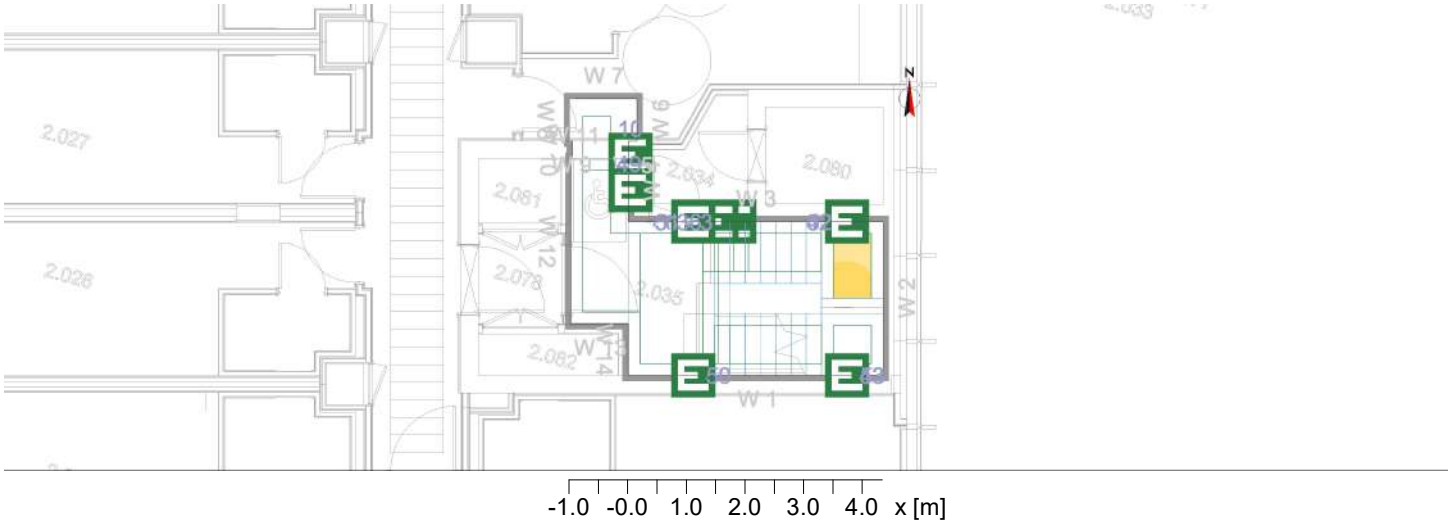
Average illuminance	$\bar{E}_m$	125 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	152 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.56 (0.64)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.9 Result overview, Quarter Landing (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	3.95 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

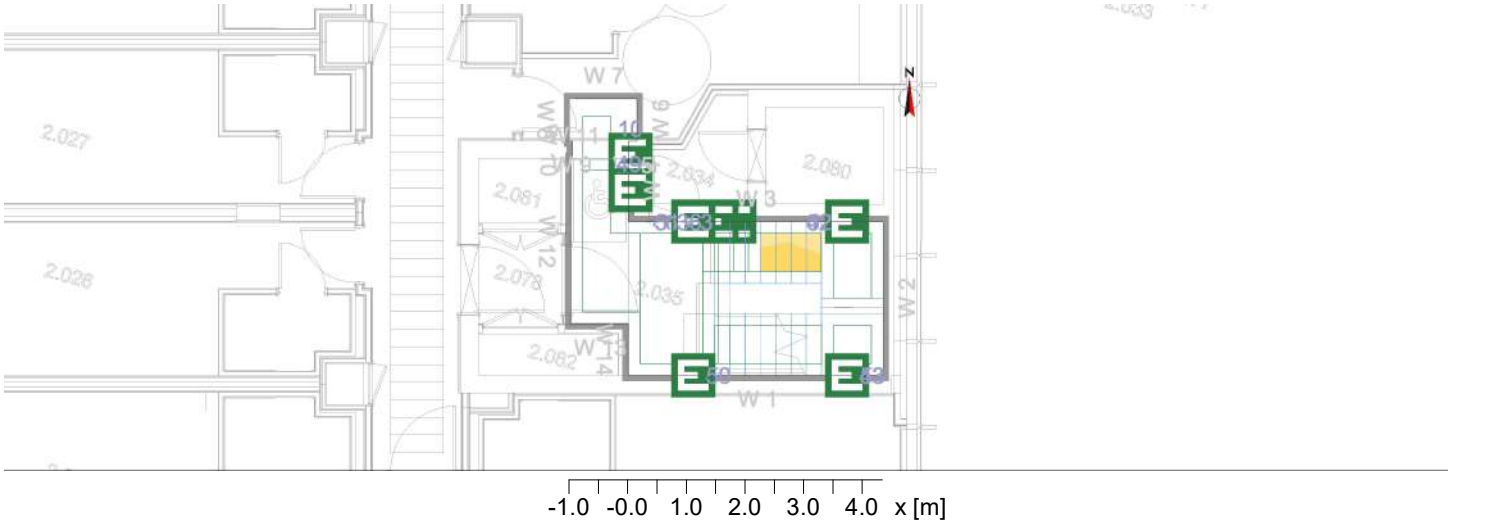
Average illuminance	$\bar{E}_m$	150 lx
Minimum illuminance	E_{min}	108 lx
Maximum illuminance	E_{max}	184 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.39 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.71 (0.59)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.10 Result overview, Tread (iv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

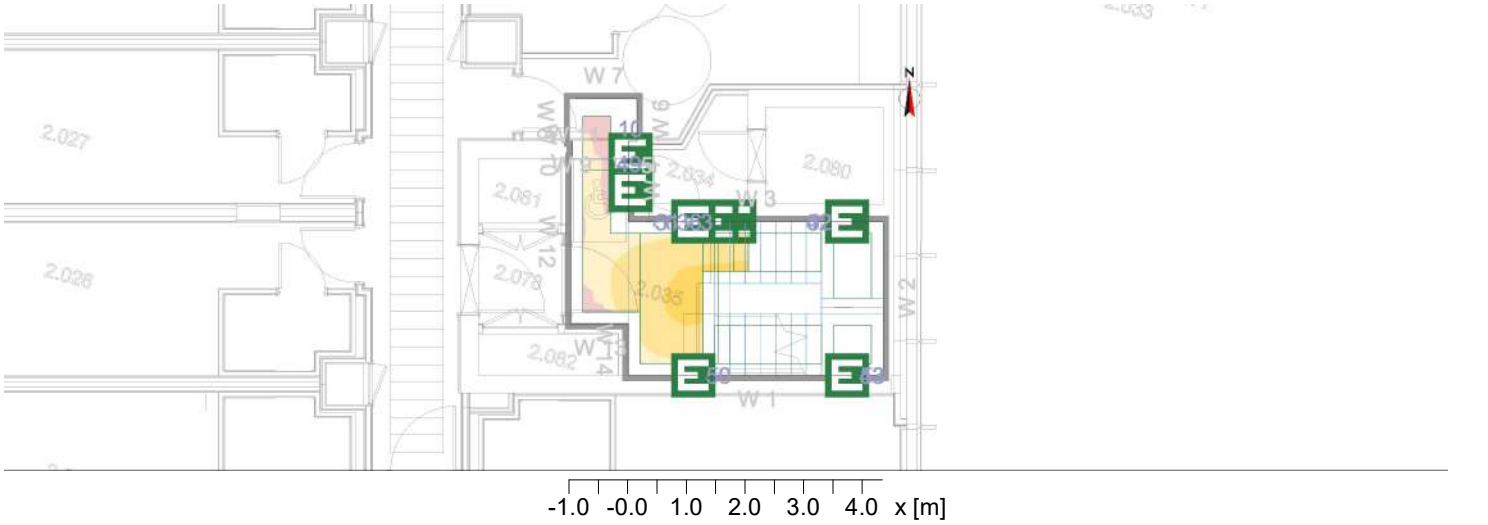
Average illuminance	$\bar{E}_m$	160 lx
Minimum illuminance	E_{min}	124 lx
Maximum illuminance	E_{max}	191 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.54 (0.65)

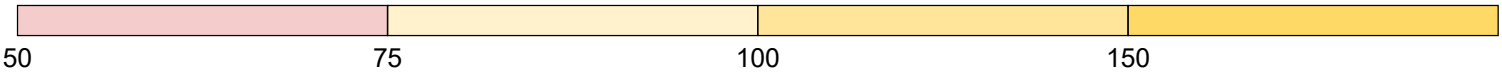
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.11 Result overview, Level 01





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	113 lx
Minimum illuminance	E_{min}	58 lx
Maximum illuminance	E_{max}	164 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.94 (0.52)
Diversity U_d	E_{min}/E_{max}	1:2.82 (0.35)

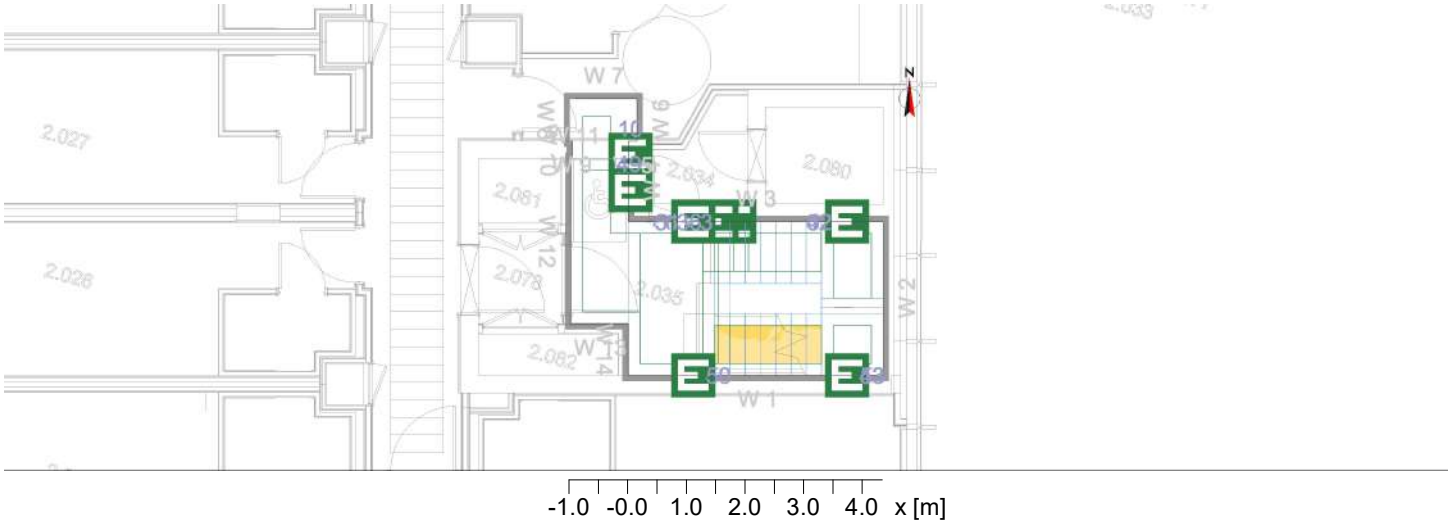
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.12 Result overview, Tread (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

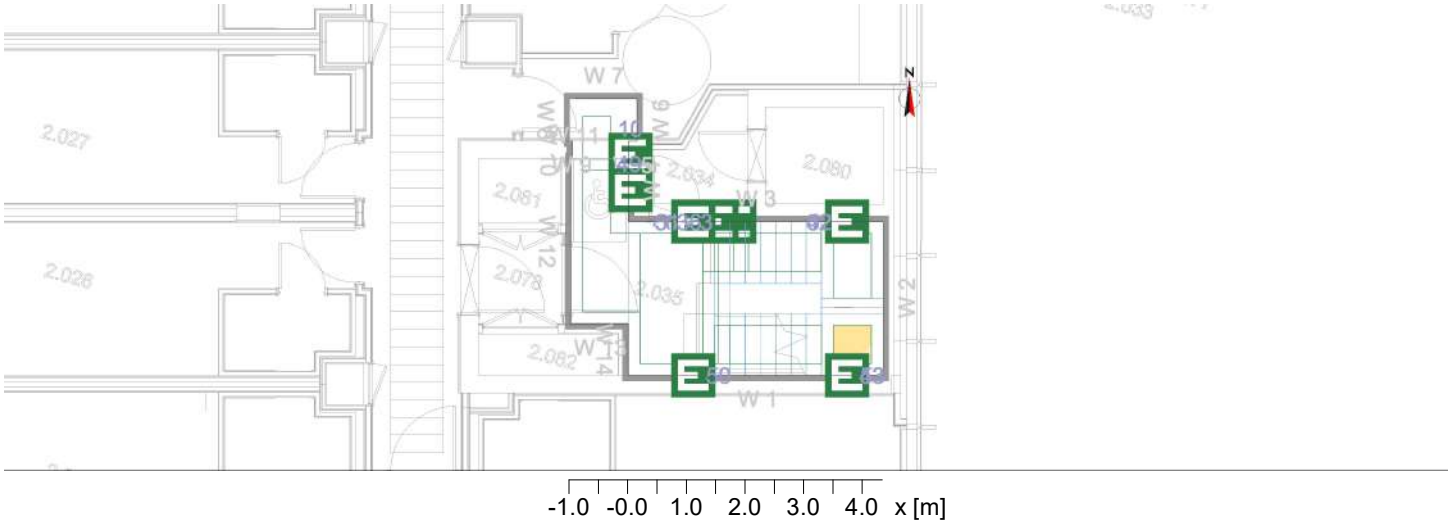
Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	104 lx
Maximum illuminance	E_{max}	162 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.56 (0.64)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.13 Result overview, Quarter Landing (v)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.09 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	86 lx
Maximum illuminance	E_{max}	141 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

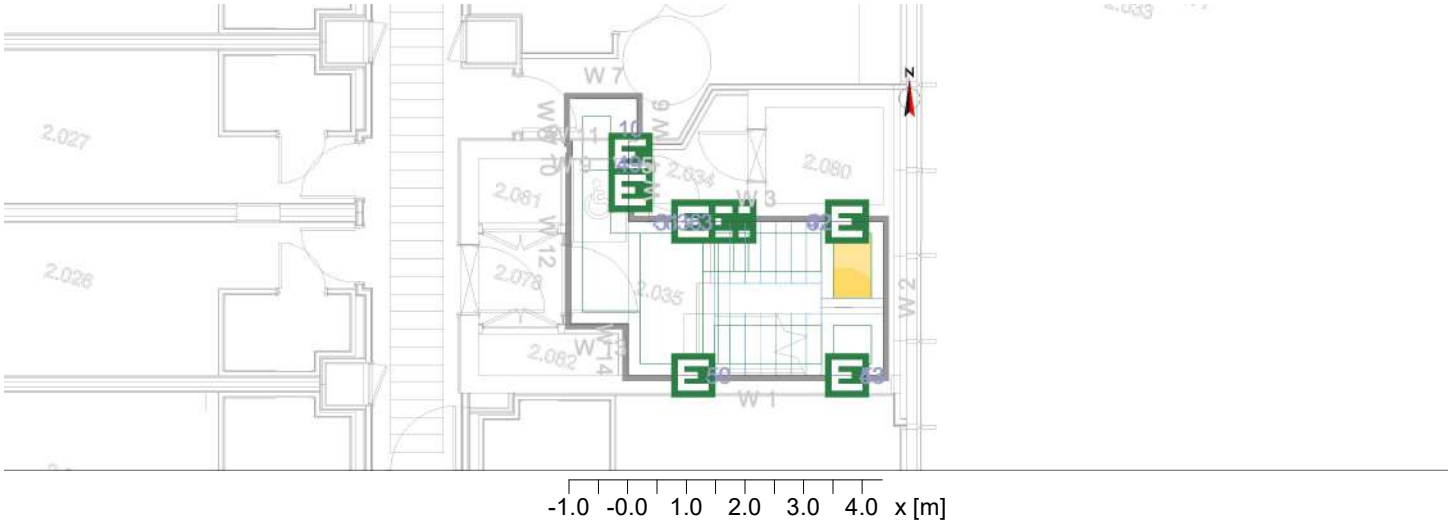
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.14 Result overview, Quarter Landing (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	6.43 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

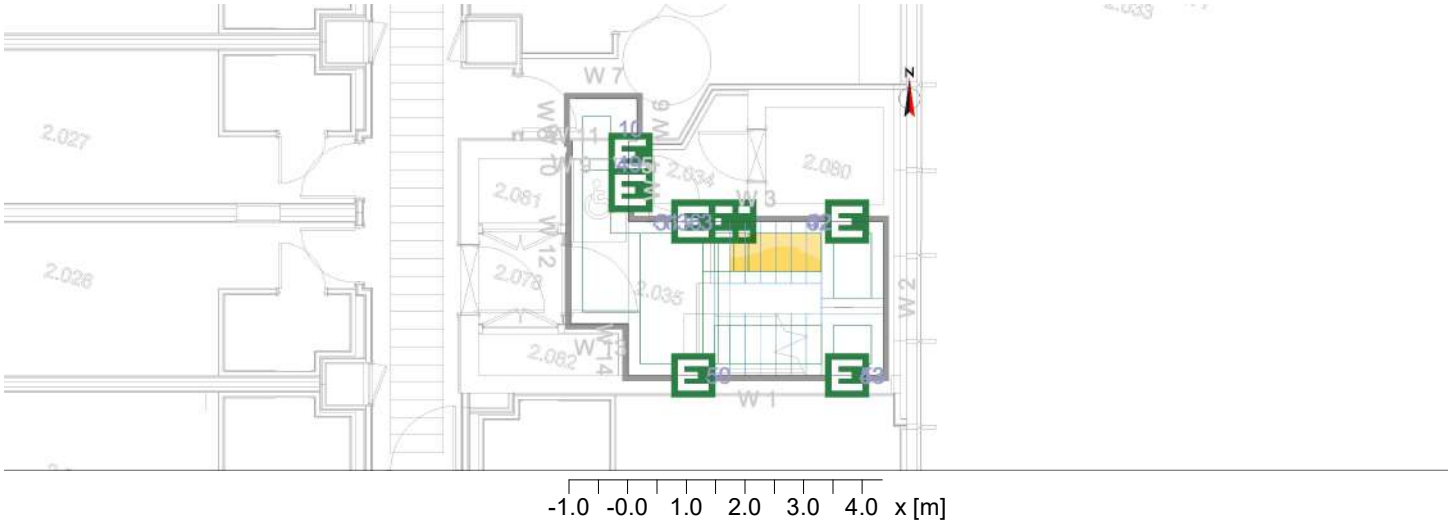
Average illuminance	$\bar{E}_m$	141 lx
Minimum illuminance	E_{min}	102 lx
Maximum illuminance	E_{max}	174 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.39 (0.72)
Diversity U_d	E_{min}/E_{max}	1:1.71 (0.58)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.15 Result overview, Tread (vi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	149 lx
Minimum illuminance	E_{min}	114 lx
Maximum illuminance	E_{max}	178 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.31 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.56 (0.64)

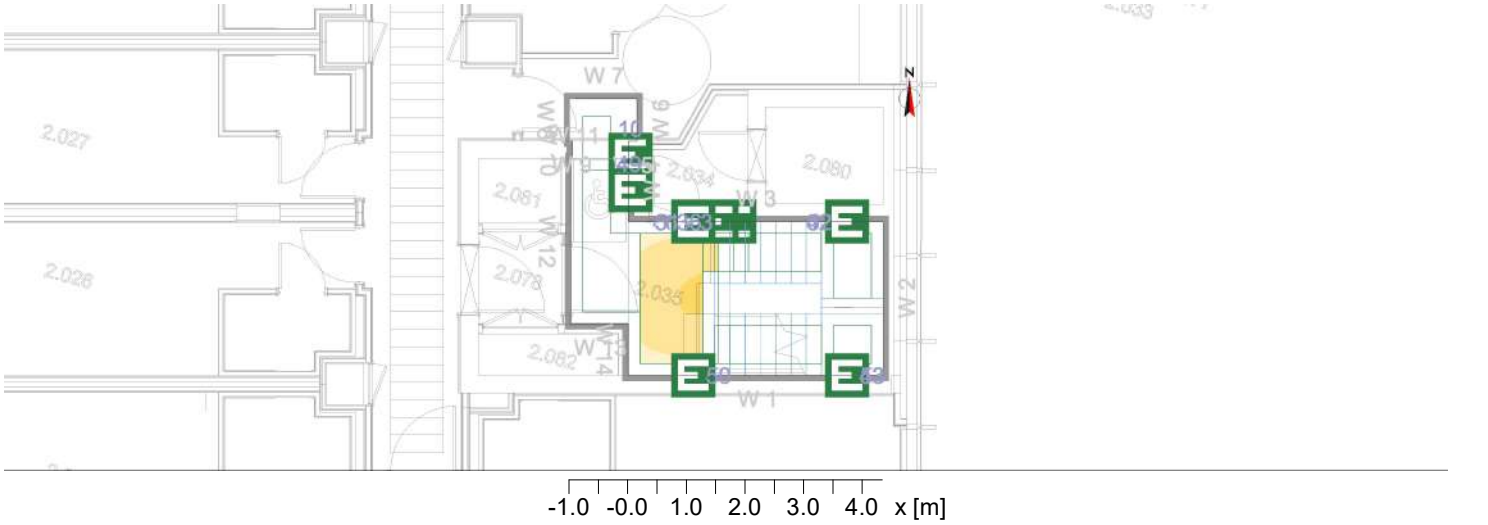
Type No.\Make

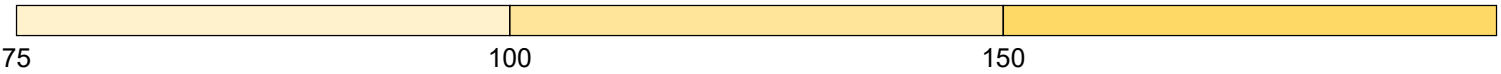
Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.16 Result overview, Level 01M





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

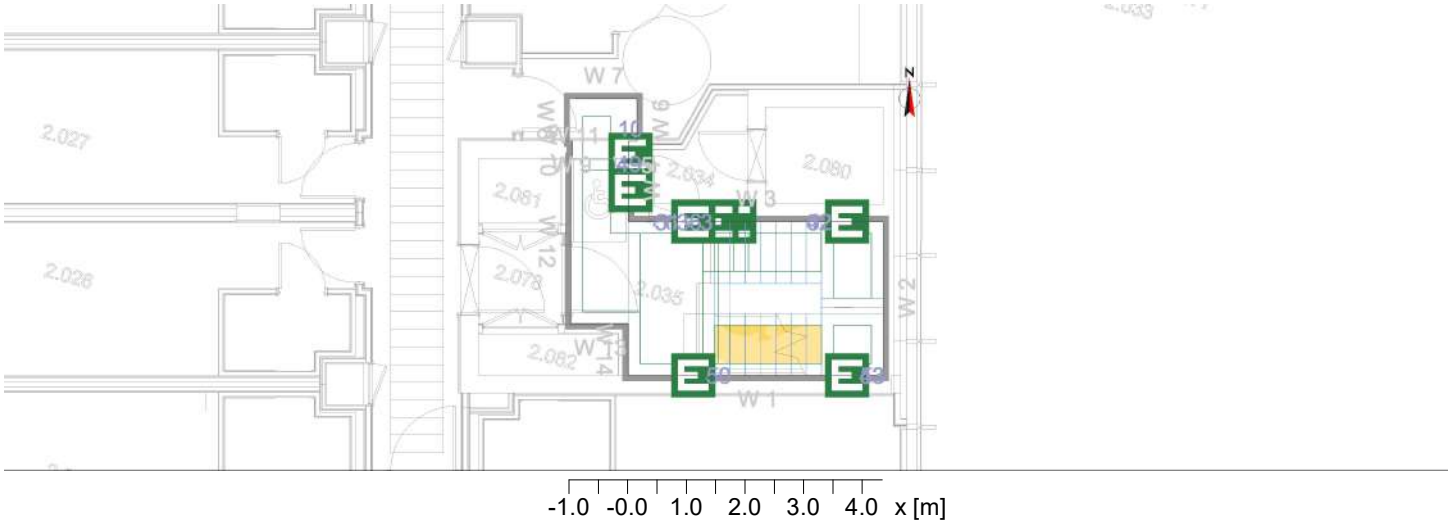
Average illuminance	$\bar{E}_m$	127 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	155 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.61 (0.62)

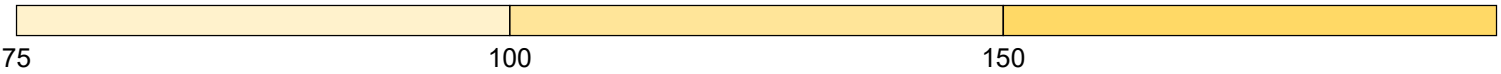
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.17 Result overview, Tread (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

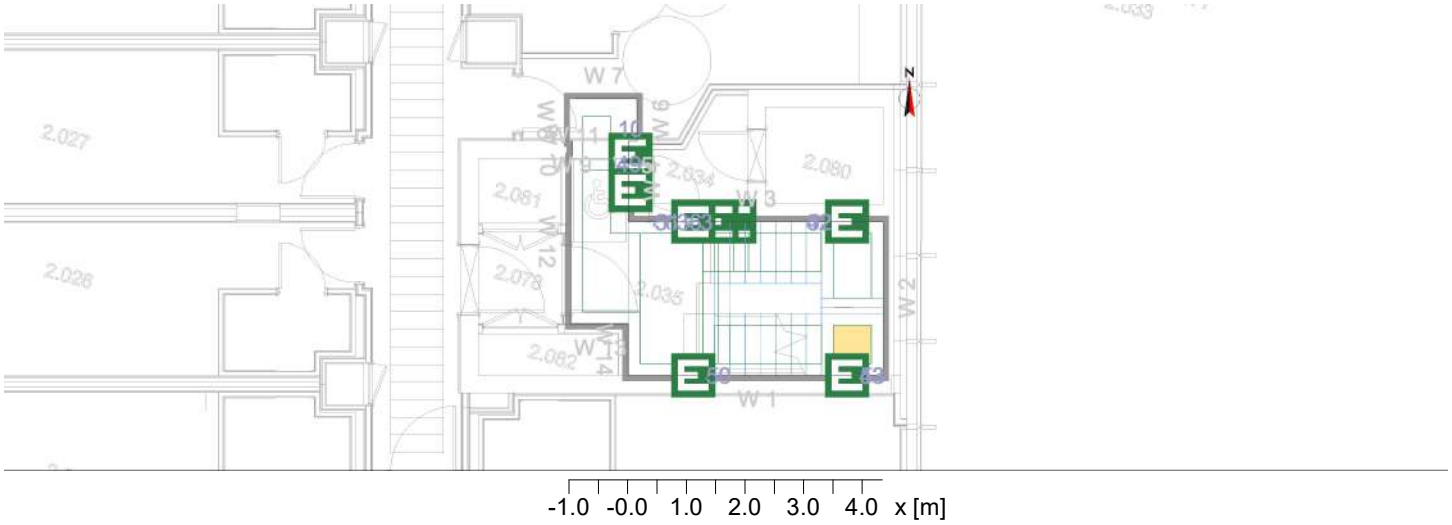
Average illuminance	$\bar{E}_m$	134 lx
Minimum illuminance	E_{min}	98 lx
Maximum illuminance	E_{max}	159 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.73)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.18 Result overview, Quarter Landing (vii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	8.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	118 lx
Minimum illuminance	E_{min}	94 lx
Maximum illuminance	E_{max}	141 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.26 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.49 (0.67)

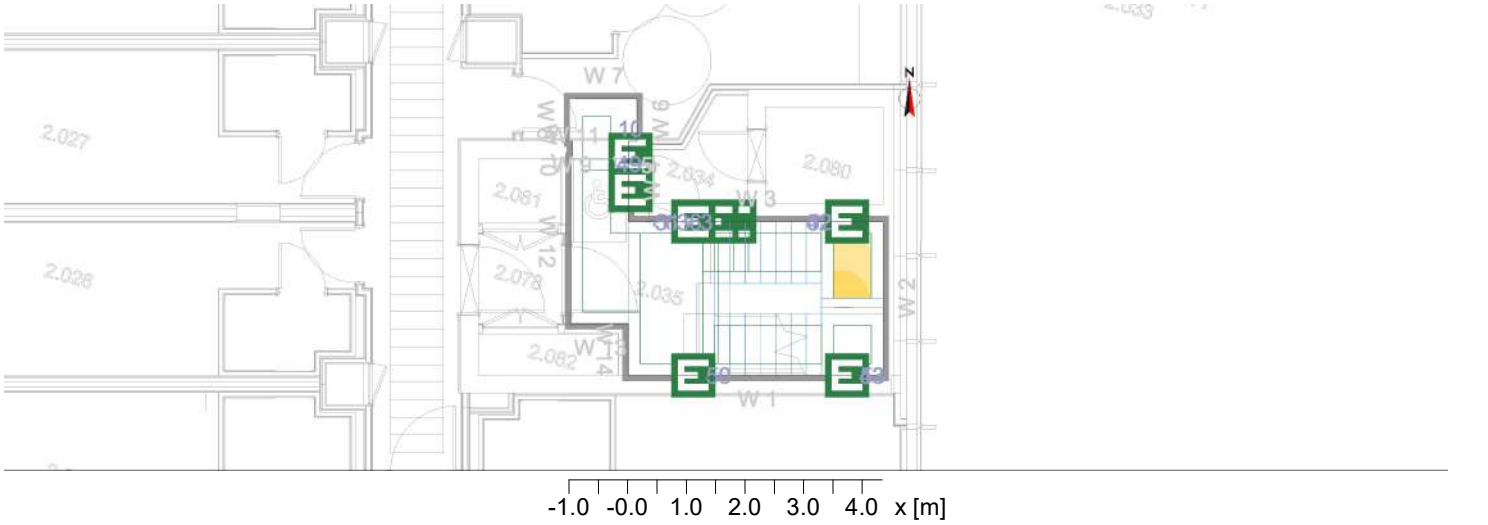
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.19 Result overview, Quarter Landing (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	9.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	135 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	172 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.48 (0.68)
Diversity U_d	E_{min}/E_{max}	1:1.88 (0.53)

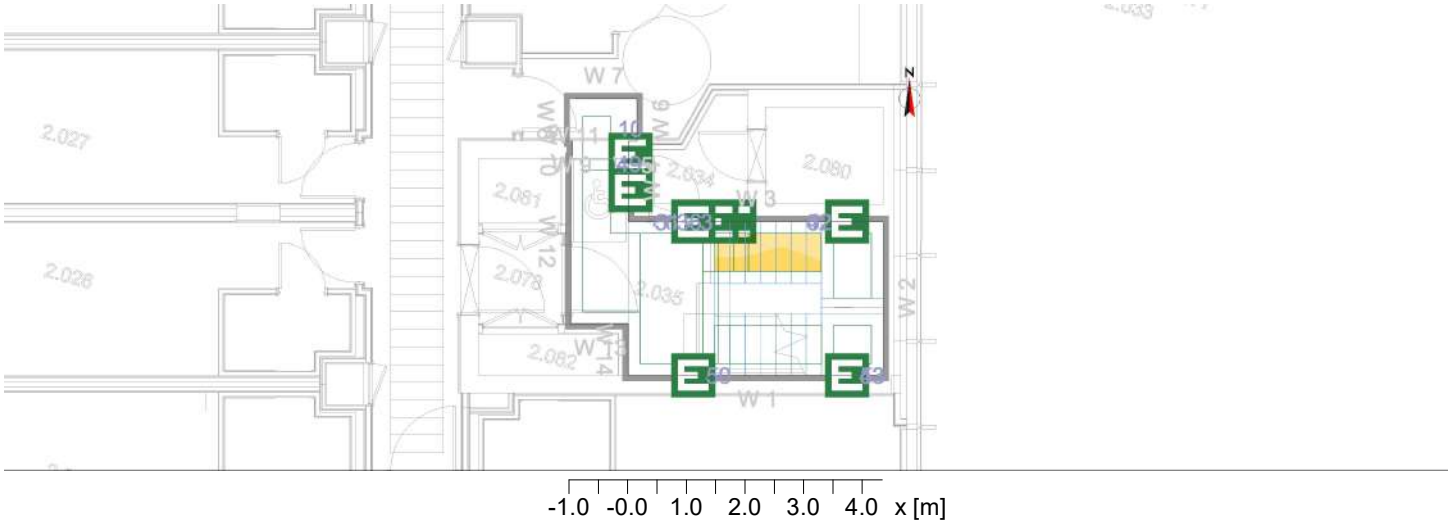
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.20 Result overview, Tread (viii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	146 lx
Minimum illuminance	E_{min}	110 lx
Maximum illuminance	E_{max}	177 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.61 (0.62)

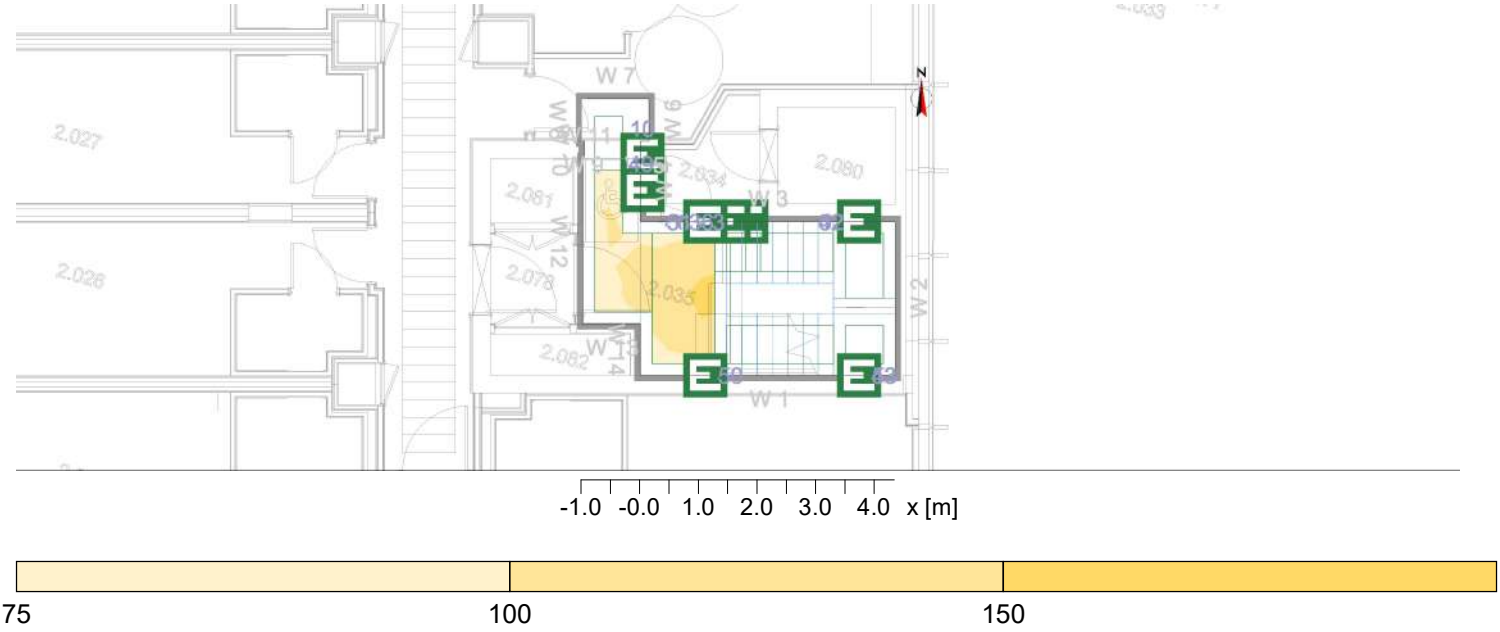
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.21 Result overview, Level 02



Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	115 lx
Minimum illuminance	E_{min}	92 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.25 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

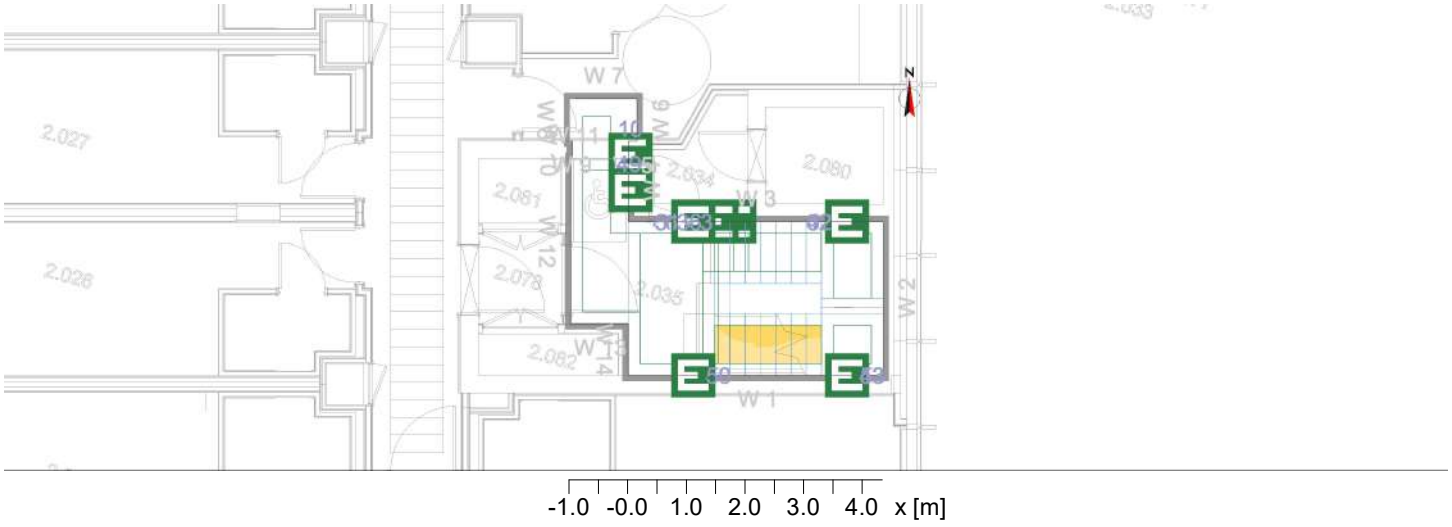
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.22 Result overview, Tread (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	144 lx
Minimum illuminance	E_{min}	102 lx
Maximum illuminance	E_{max}	170 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.41 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.66 (0.6)

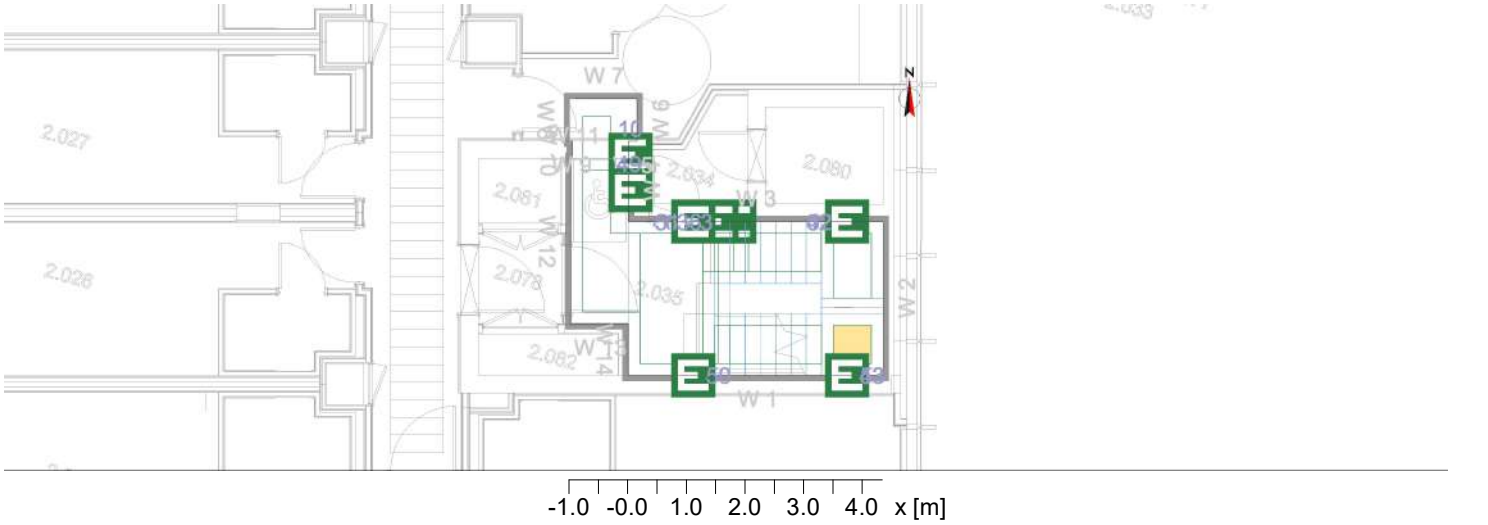
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.23 Result overview, Quarter Landing (ix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	11.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

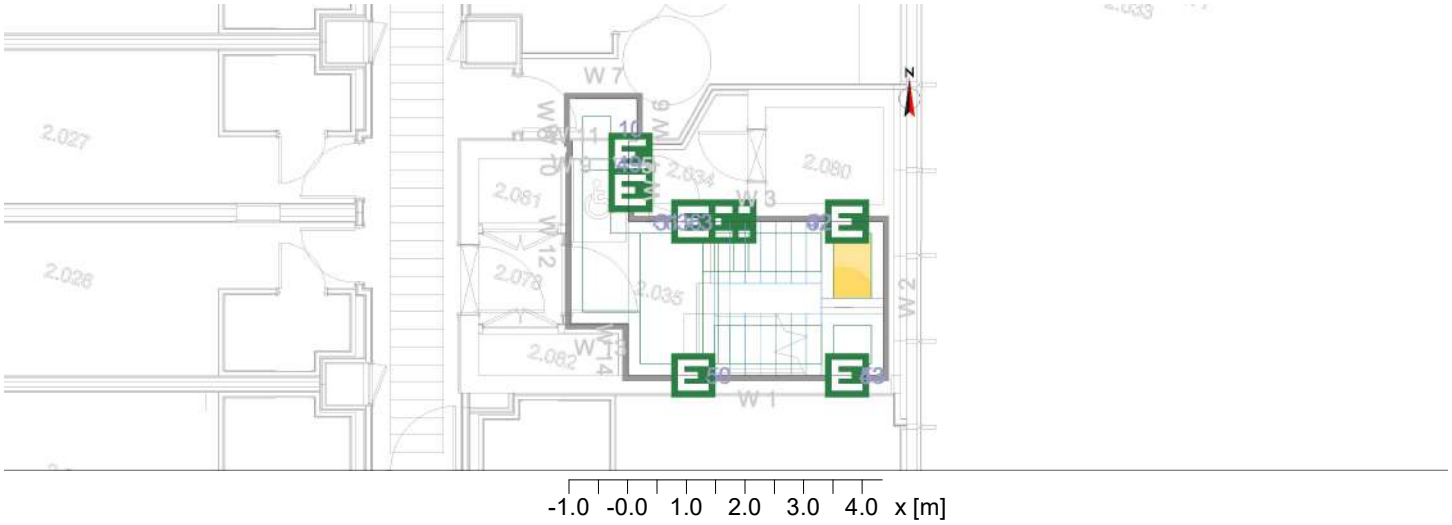
Average illuminance	$\bar{E}_m$	122 lx
Minimum illuminance	E_{min}	99 lx
Maximum illuminance	E_{max}	146 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.23 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.47 (0.68)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.24 Result overview, Quarter Landing (x)





100 150

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	12.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

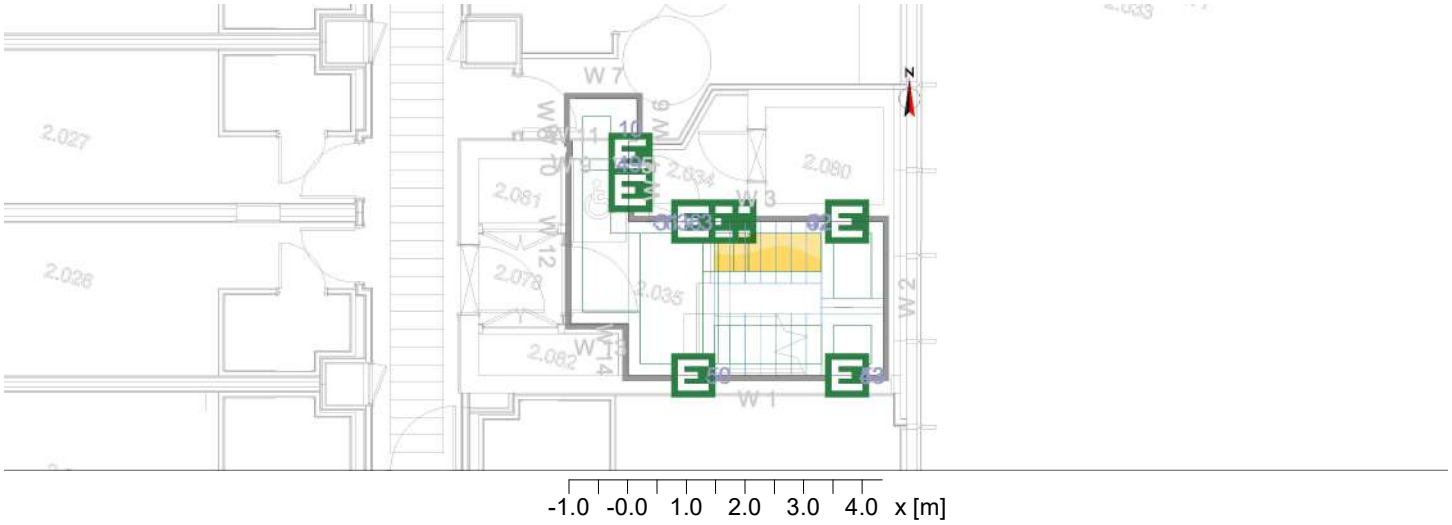
Average illuminance	$\bar{E}_m$	142 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	176 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.4 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.74 (0.57)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.25 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

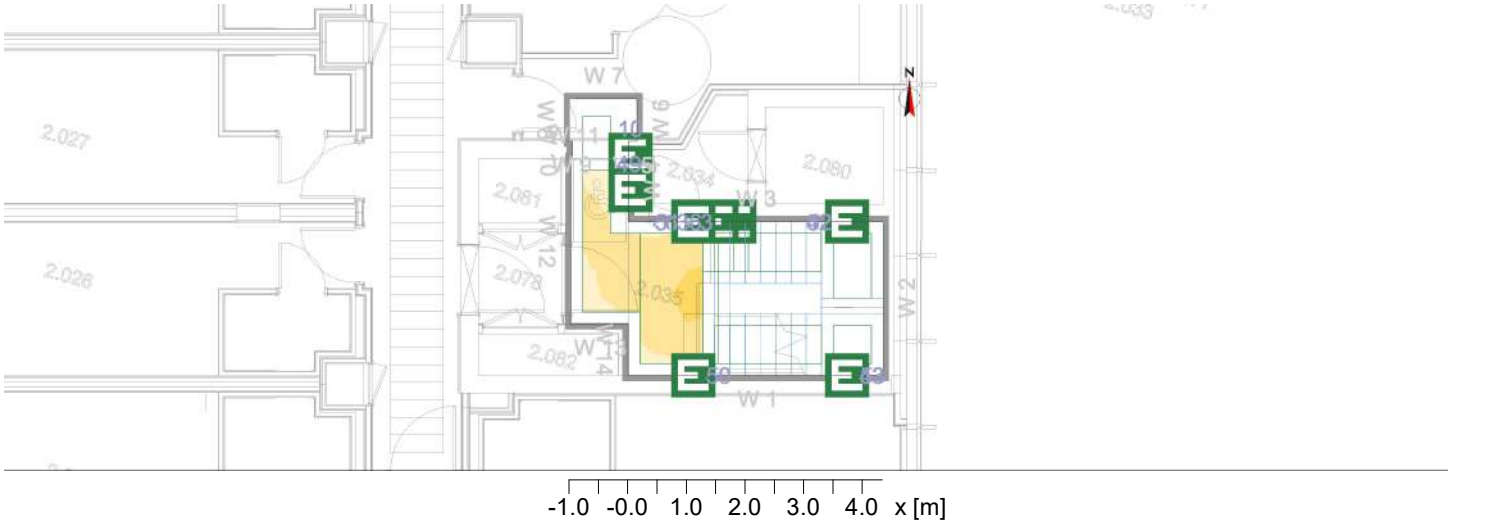
Average illuminance	$\bar{E}_m$	150 lx
Minimum illuminance	E_{min}	116 lx
Maximum illuminance	E_{max}	180 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.65)

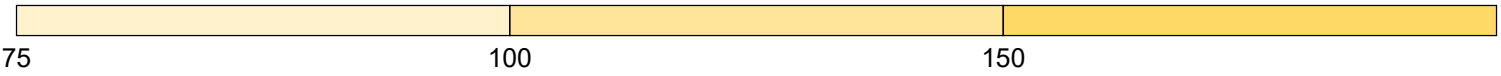
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.26 Result overview, Level 03





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

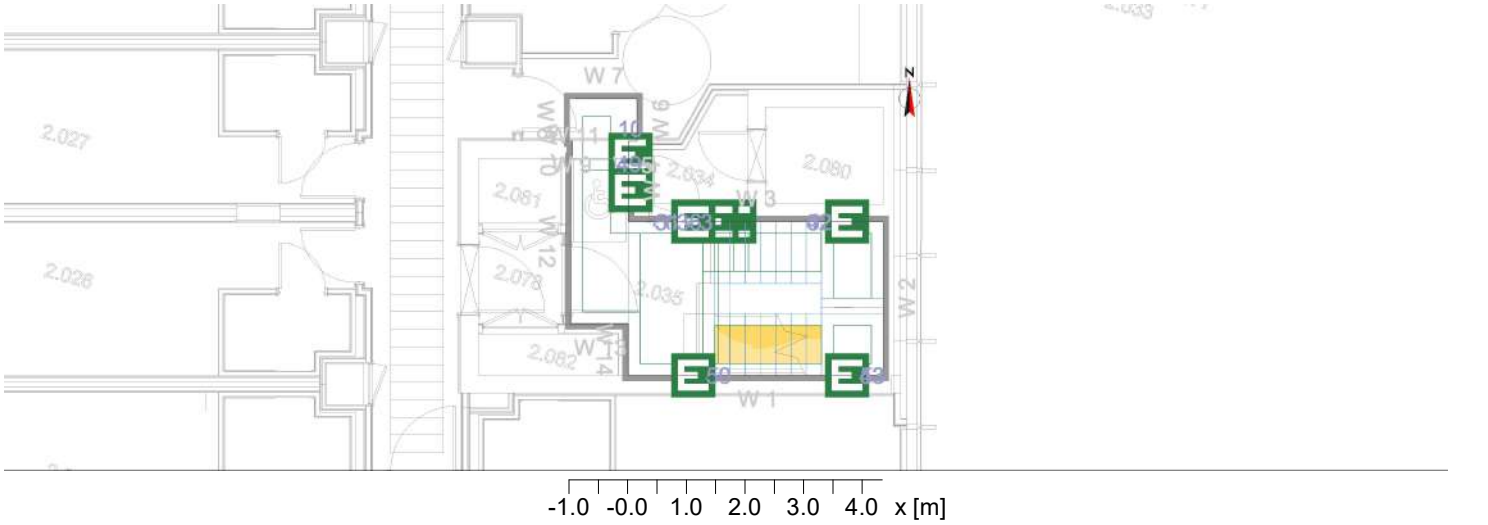
Average illuminance	$\bar{E}_m$	119 lx
Minimum illuminance	E_{min}	94 lx
Maximum illuminance	E_{max}	160 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.26 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.69 (0.59)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.27 Result overview, Tread (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	145 lx
Minimum illuminance	E_{min}	101 lx
Maximum illuminance	E_{max}	172 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.43 (0.7)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

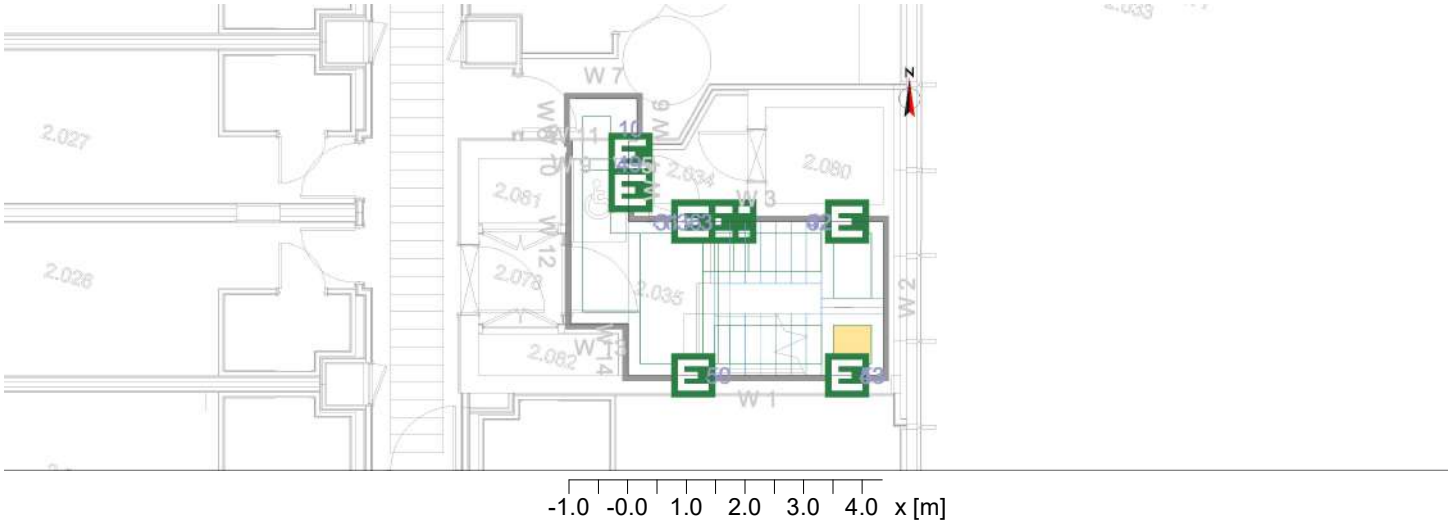
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.28 Result overview, Quarter Landing (xi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	14.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	121 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	145 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.49 (0.67)

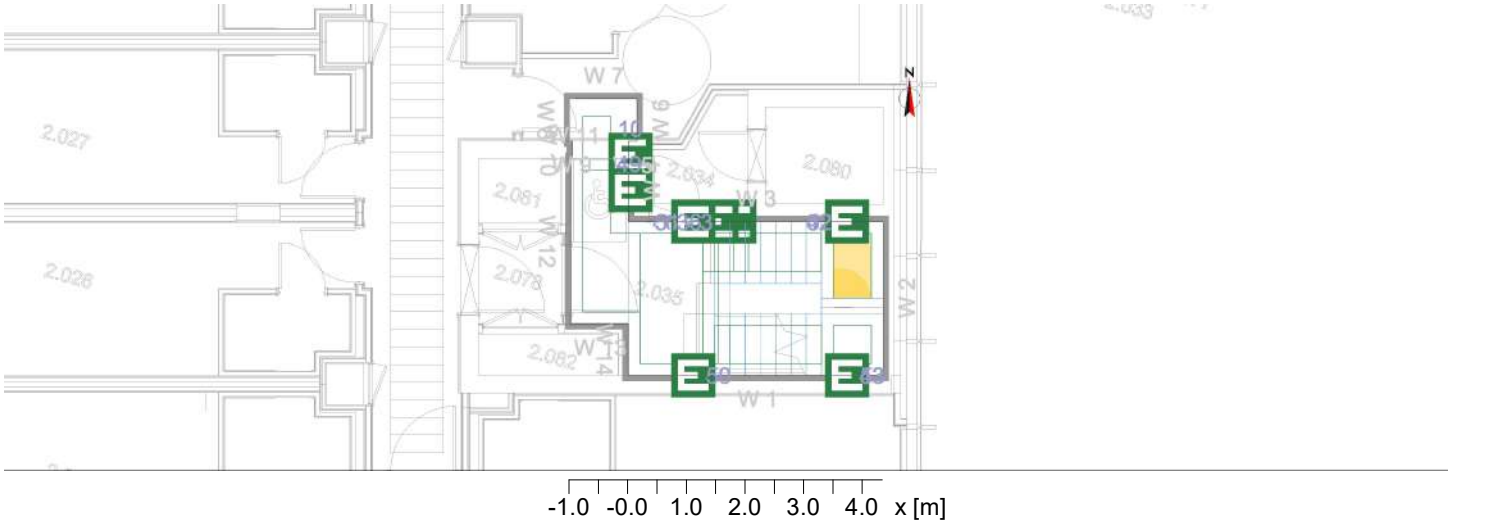
Type No.\Make

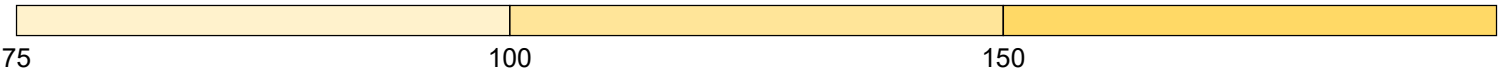
Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.29 Result overview, Quarter Landing (xii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	15.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

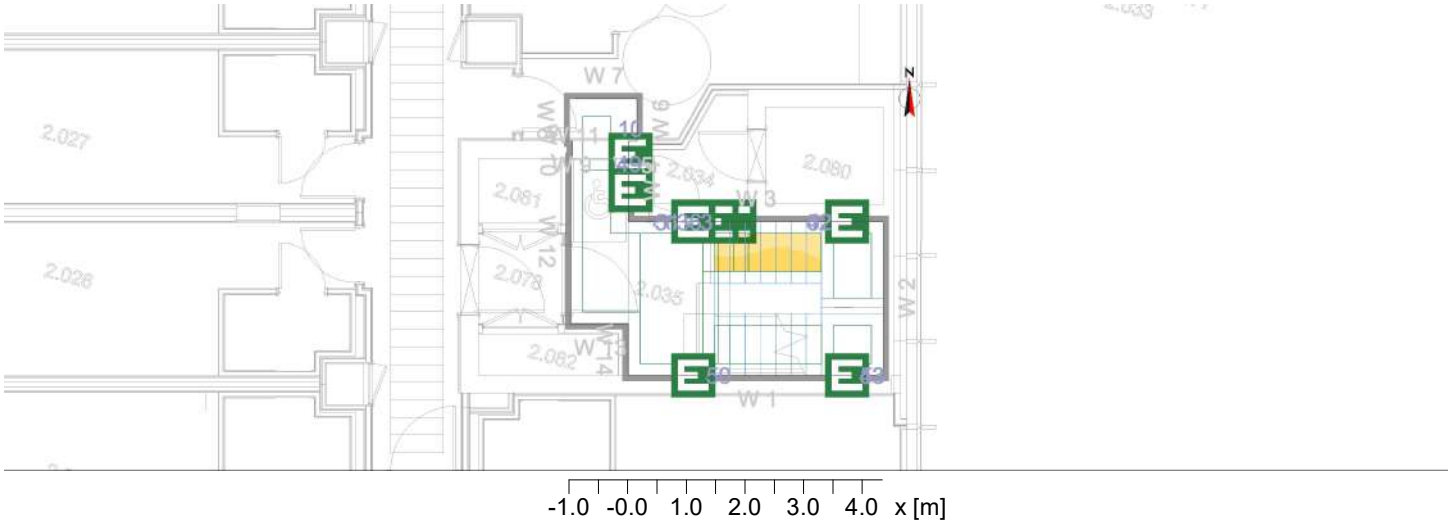
Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	174 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.45 (0.69)
Diversity U_d	E_{min}/E_{max}	1:1.82 (0.55)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.30 Result overview, Tread (xii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	148 lx
Minimum illuminance	E_{min}	117 lx
Maximum illuminance	E_{max}	179 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.53 (0.65)

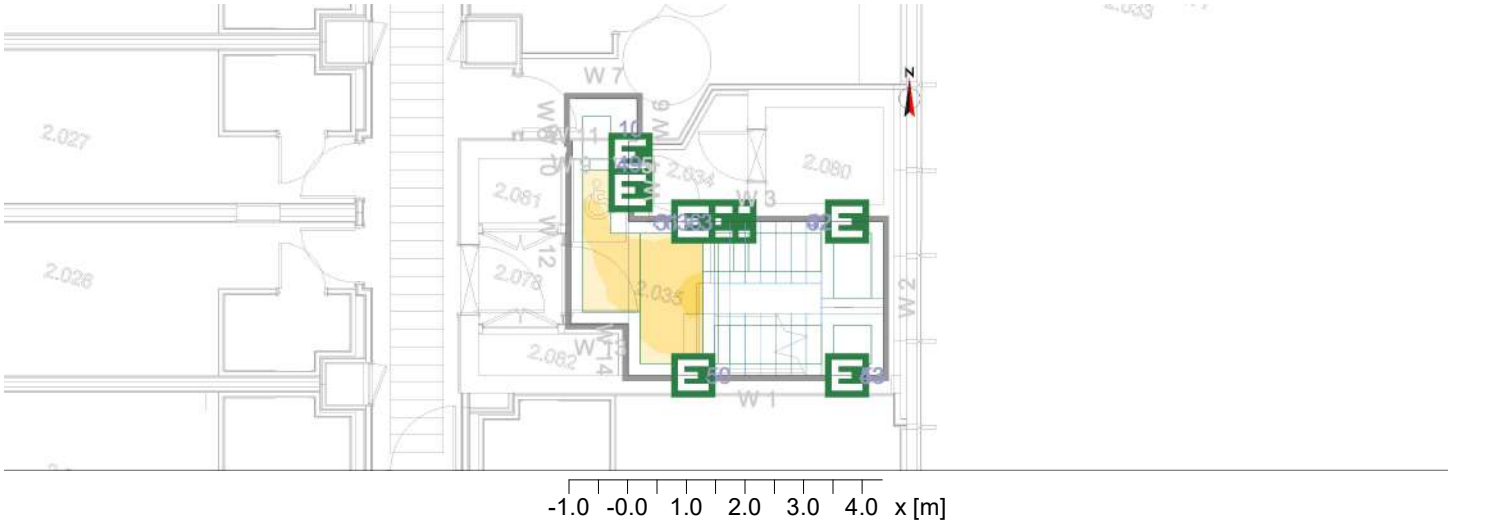
Type No.\Make

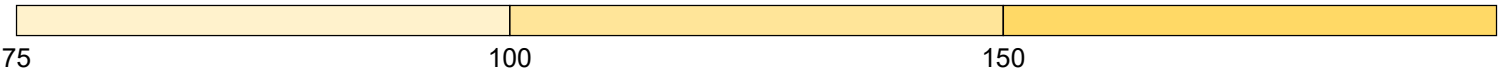
Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.31 Result overview, Level 04





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

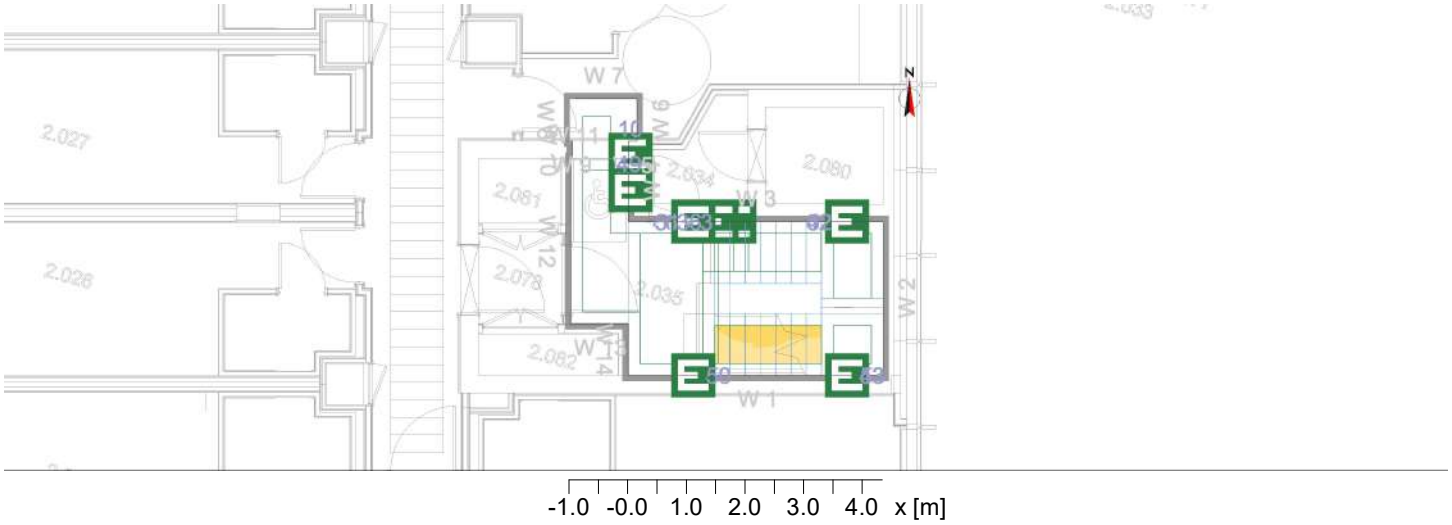
Average illuminance	$\bar{E}_m$	117 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	158 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.26 (0.8)
Diversity U_d	E_{min}/E_{max}	1:1.69 (0.59)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.32 Result overview, Tread (xiii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	143 lx
Minimum illuminance	E_{min}	105 lx
Maximum illuminance	E_{max}	171 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.36 (0.73)
Diversity U_d	E_{min}/E_{max}	1:1.62 (0.62)

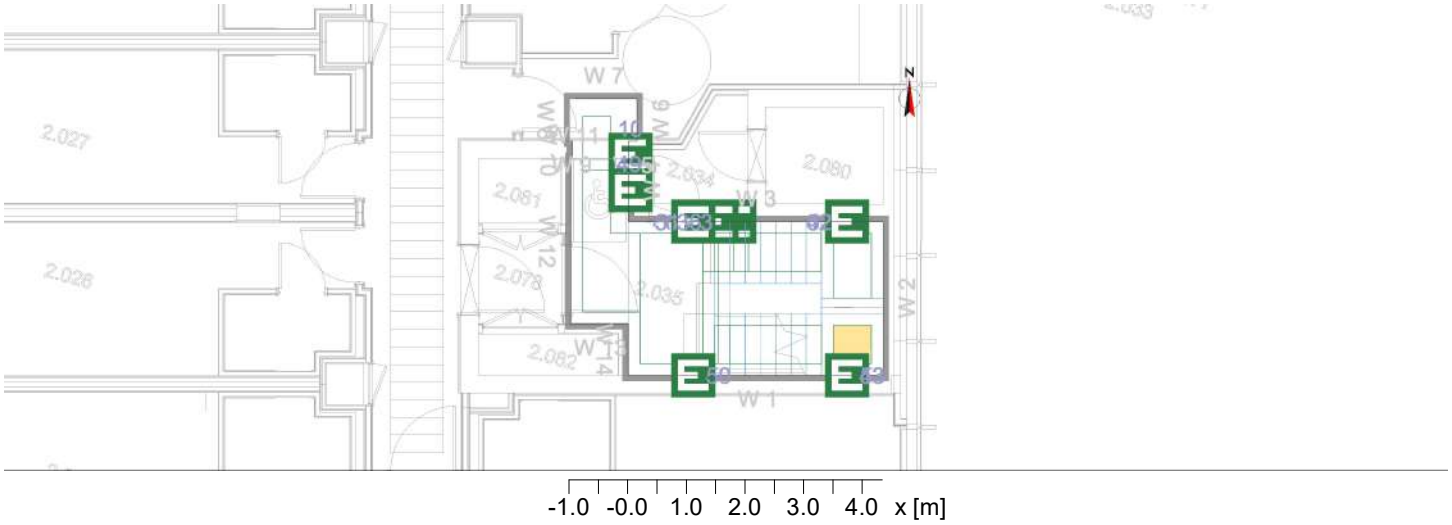
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.33 Result overview, Quarter Landing (xiii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	17.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	120 lx
Minimum illuminance	E_{min}	95 lx
Maximum illuminance	E_{max}	143 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)

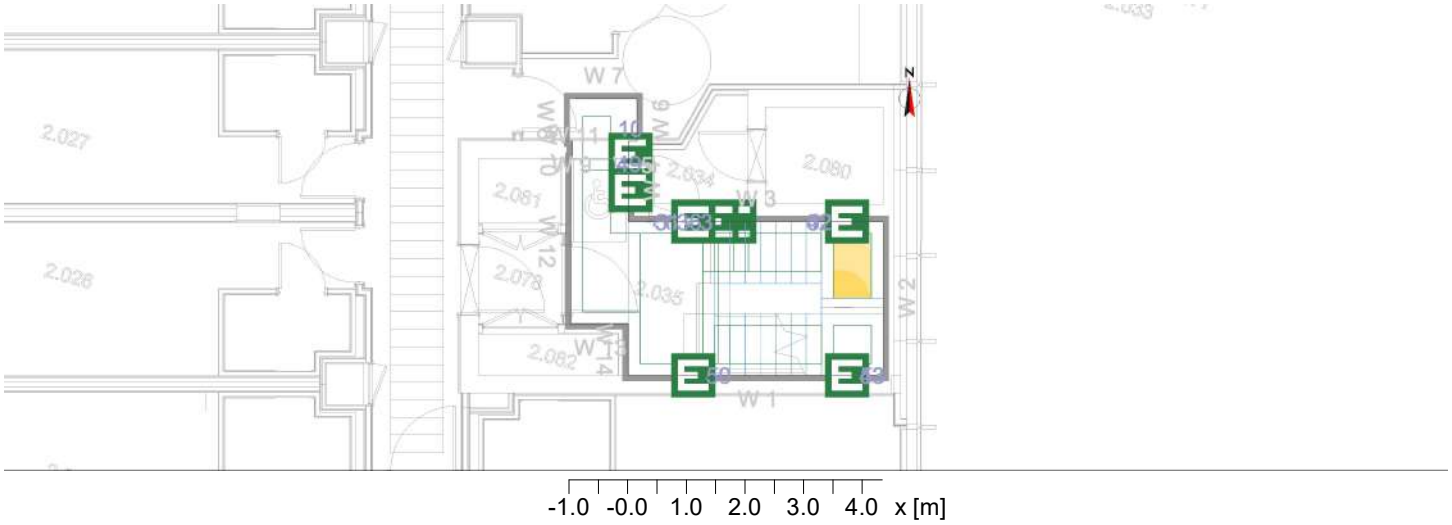
Type No.\Make

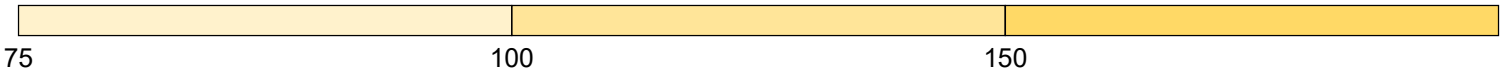
Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.34 Result overview, Quarter Landing (xiv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	18.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

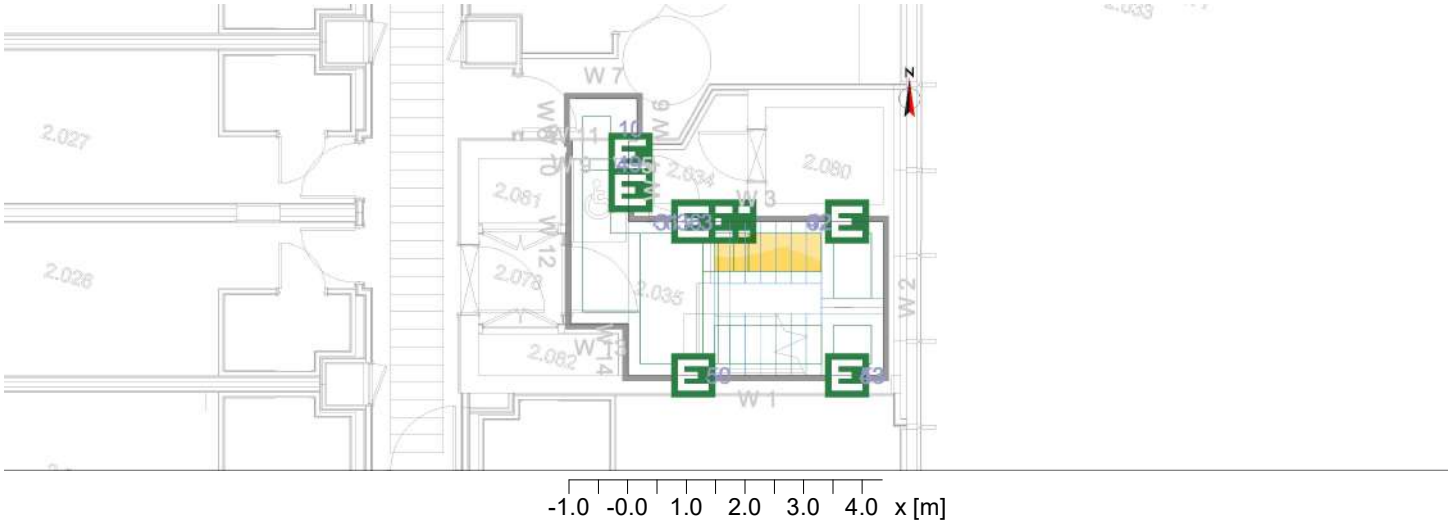
Average illuminance	$\bar{E}_m$	136 lx
Minimum illuminance	E_{min}	91 lx
Maximum illuminance	E_{max}	172 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.48 (0.67)
Diversity U_d	E_{min}/E_{max}	1:1.88 (0.53)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.35 Result overview, Tread (xiv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

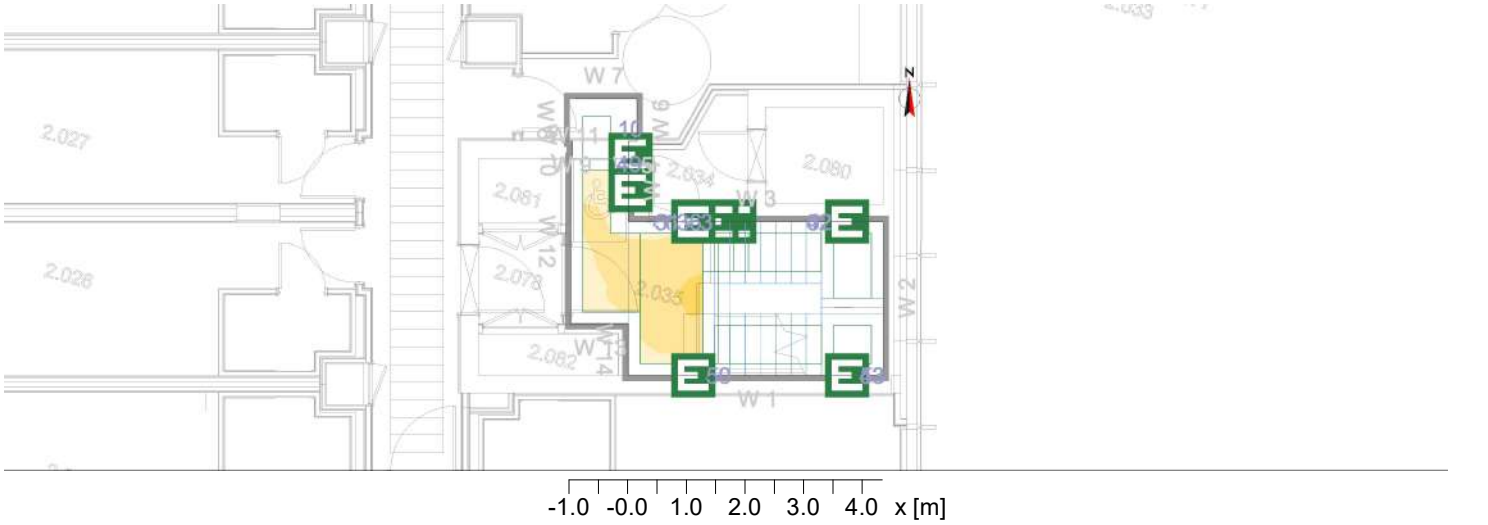
Average illuminance	$\bar{E}_m$	146 lx
Minimum illuminance	E_{min}	111 lx
Maximum illuminance	E_{max}	177 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.6 (0.63)

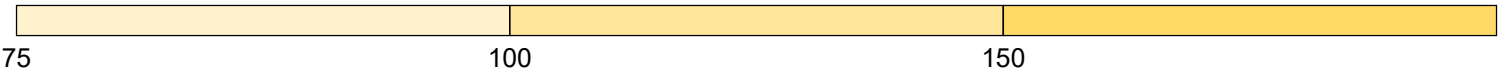
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.36 Result overview, Level 05





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

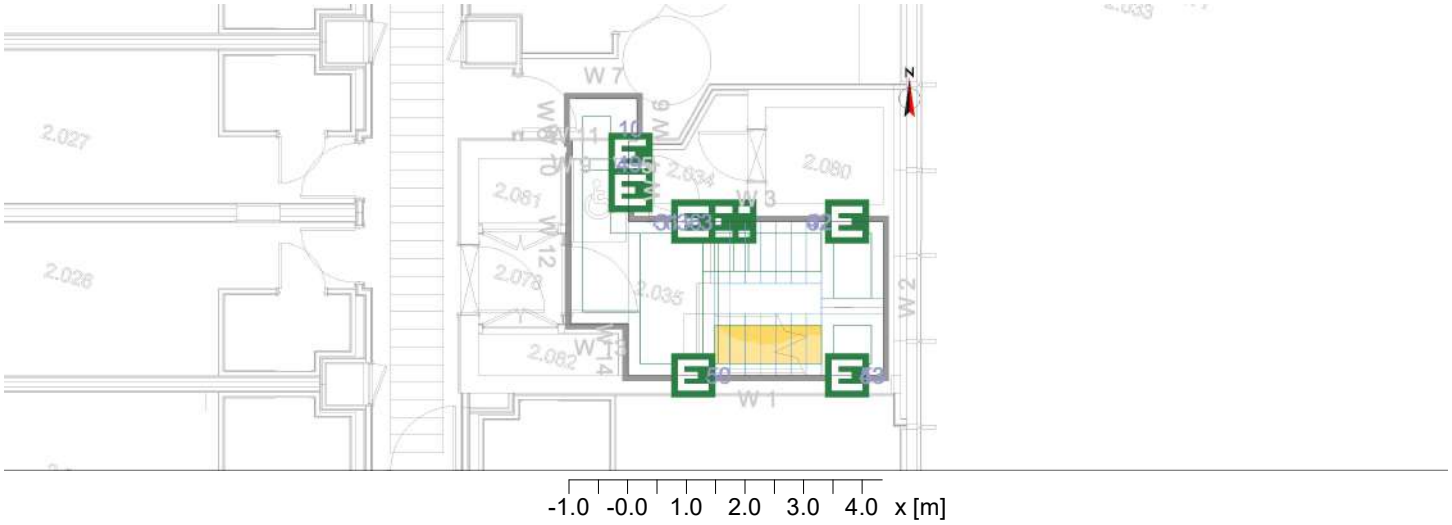
Average illuminance	$\bar{E}_m$	116 lx
Minimum illuminance	E_{min}	89 lx
Maximum illuminance	E_{max}	157 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.3 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.76 (0.57)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.37 Result overview, Tread (xv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	141 lx
Minimum illuminance	E_{min}	100 lx
Maximum illuminance	E_{max}	168 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.4 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.68 (0.6)

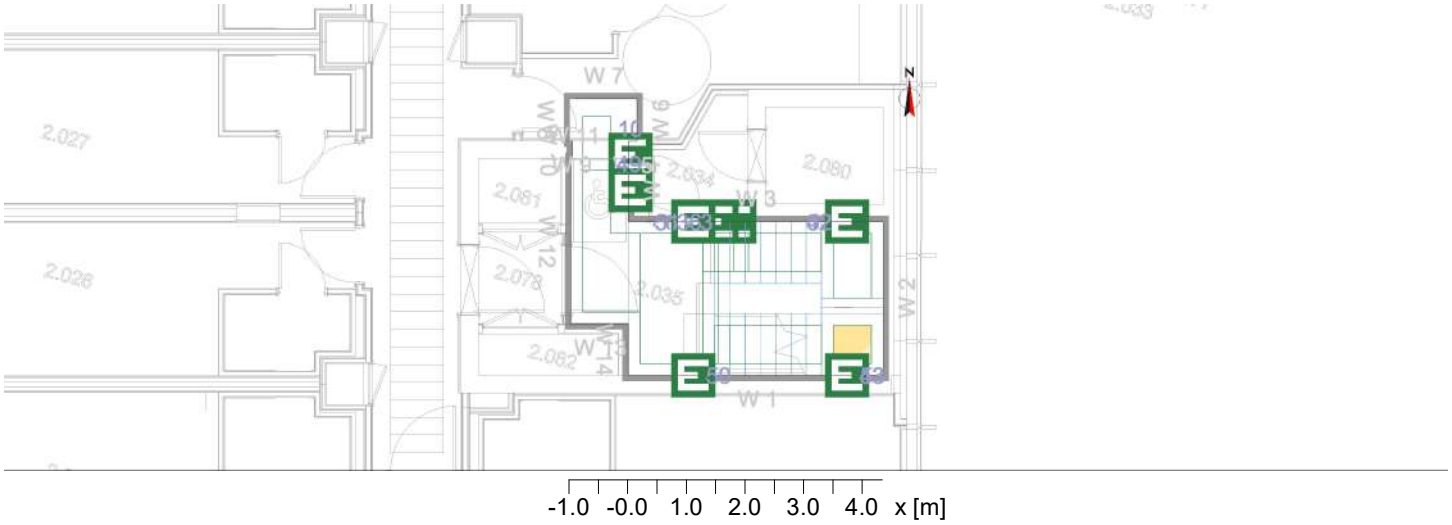
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.38 Result overview, Quarter Landing (xv)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	20.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	115 lx
Minimum illuminance	E_{min}	87 lx
Maximum illuminance	E_{max}	142 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.33 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.64 (0.61)

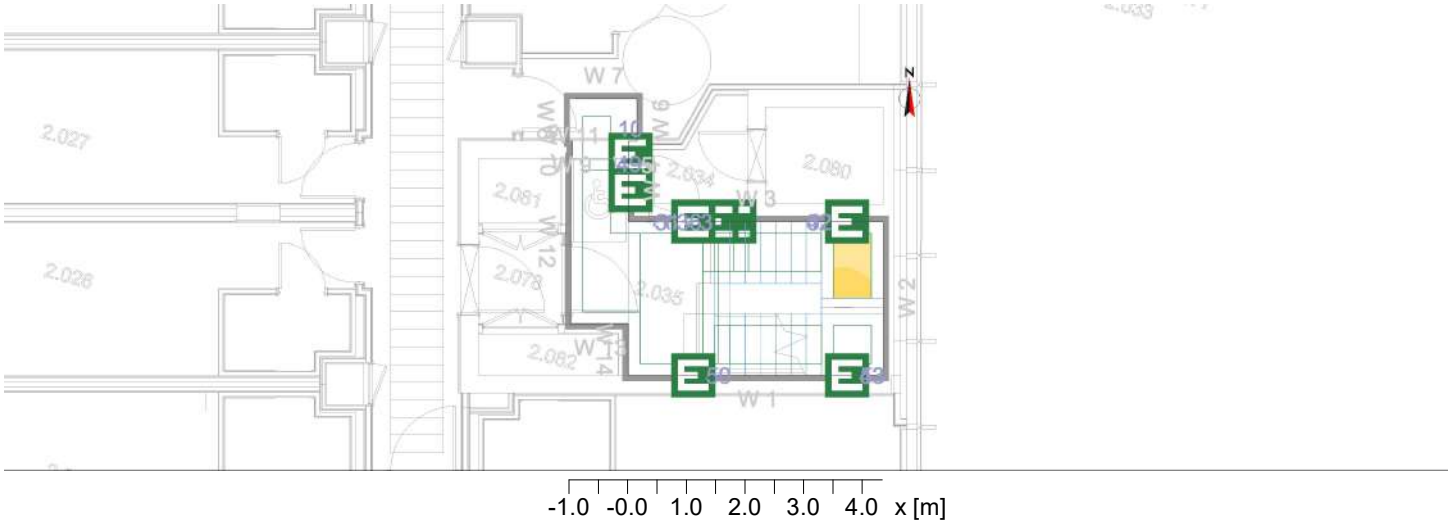
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.39 Result overview, Quarter Landing (xvi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	21.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

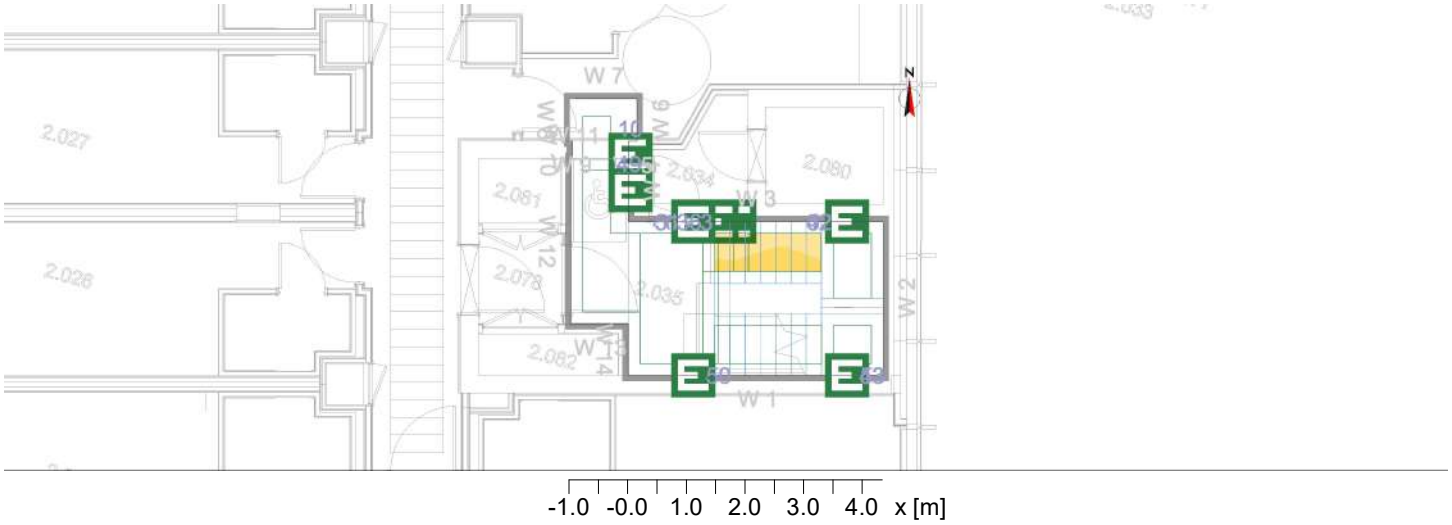
Average illuminance	$\bar{E}_m$	142 lx
Minimum illuminance	E_{min}	103 lx
Maximum illuminance	E_{max}	175 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.38 (0.73)
Diversity U_d	E_{min}/E_{max}	1:1.7 (0.59)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.40 Result overview, Tread (xvi)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

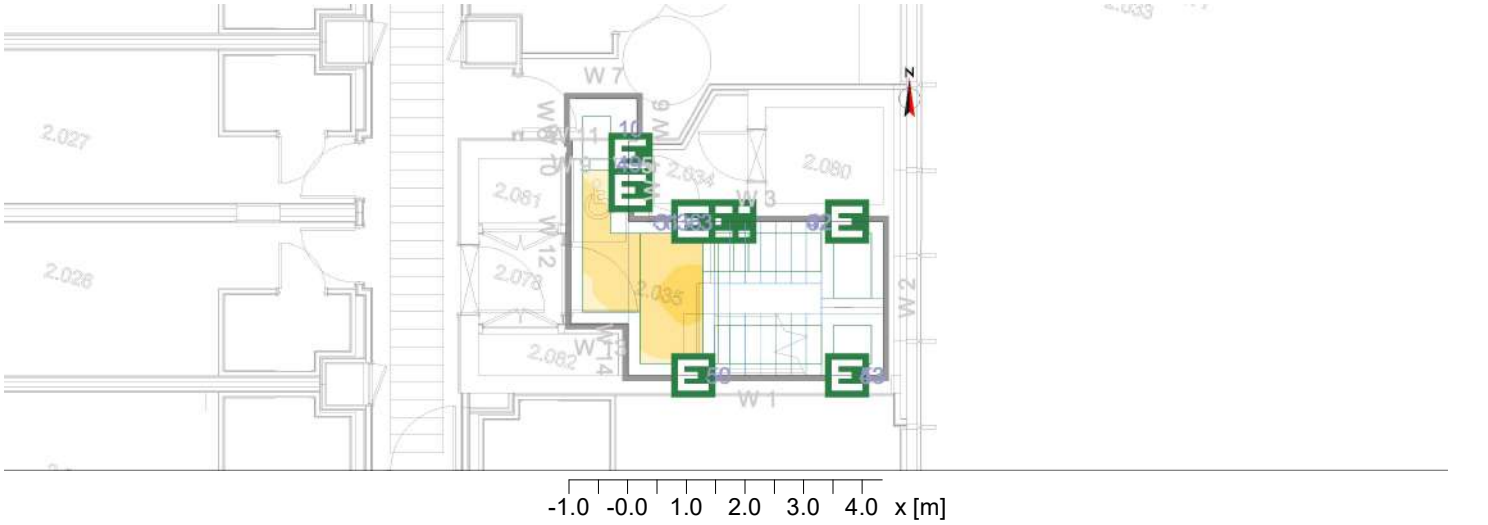
Average illuminance	$\bar{E}_m$	147 lx
Minimum illuminance	E_{min}	115 lx
Maximum illuminance	E_{max}	177 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max}	1:1.55 (0.65)

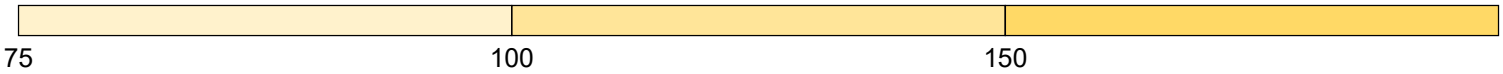
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.41 Result overview, Level 06





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

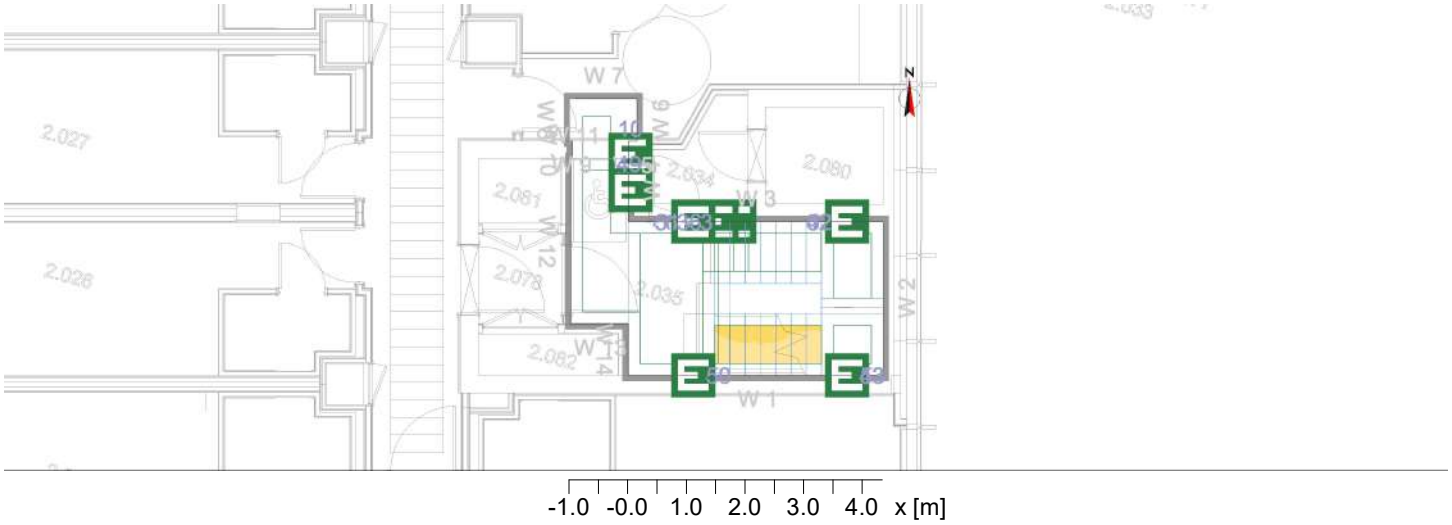
Average illuminance	$\bar{E}_m$	126 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	165 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.69 (0.59)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.42 Result overview, Tread (xvii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	140 lx
Minimum illuminance	E_{min}	105 lx
Maximum illuminance	E_{max}	169 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.34 (0.75)
Diversity U_d	E_{min}/E_{max}	1:1.61 (0.62)

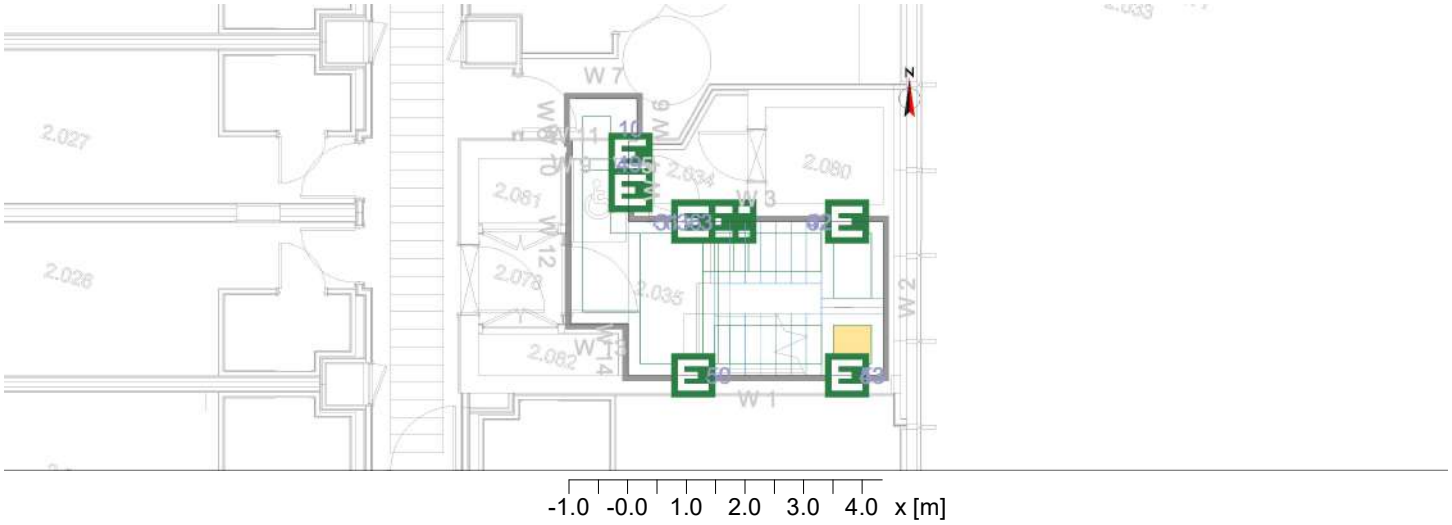
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.43 Result overview, Quarter Landing (xvii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	23.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

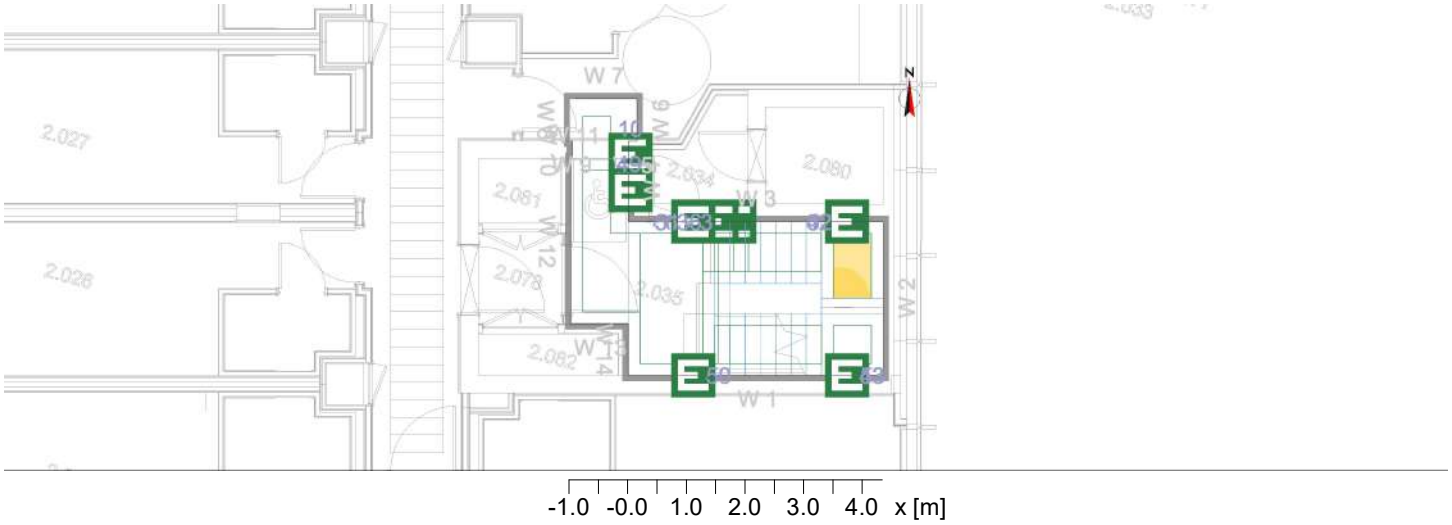
Average illuminance	$\bar{E}_m$	119 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	142 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.24 (0.81)
Diversity U_d	E_{min}/E_{max}	1:1.47 (0.68)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.44 Result overview, Quarter Landing (xviii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	24.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	139 lx
Minimum illuminance	E_{min}	97 lx
Maximum illuminance	E_{max}	172 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.44 (0.7)
Diversity U_d	E_{min}/E_{max}	1:1.78 (0.56)

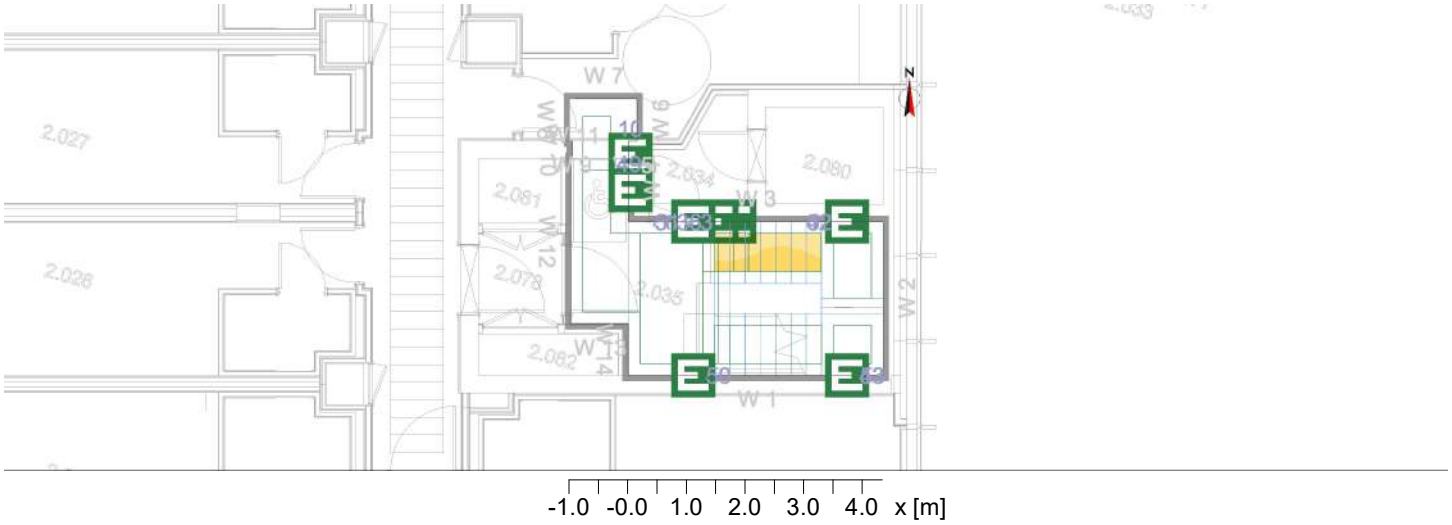
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.45 Result overview, Tread (xviii)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

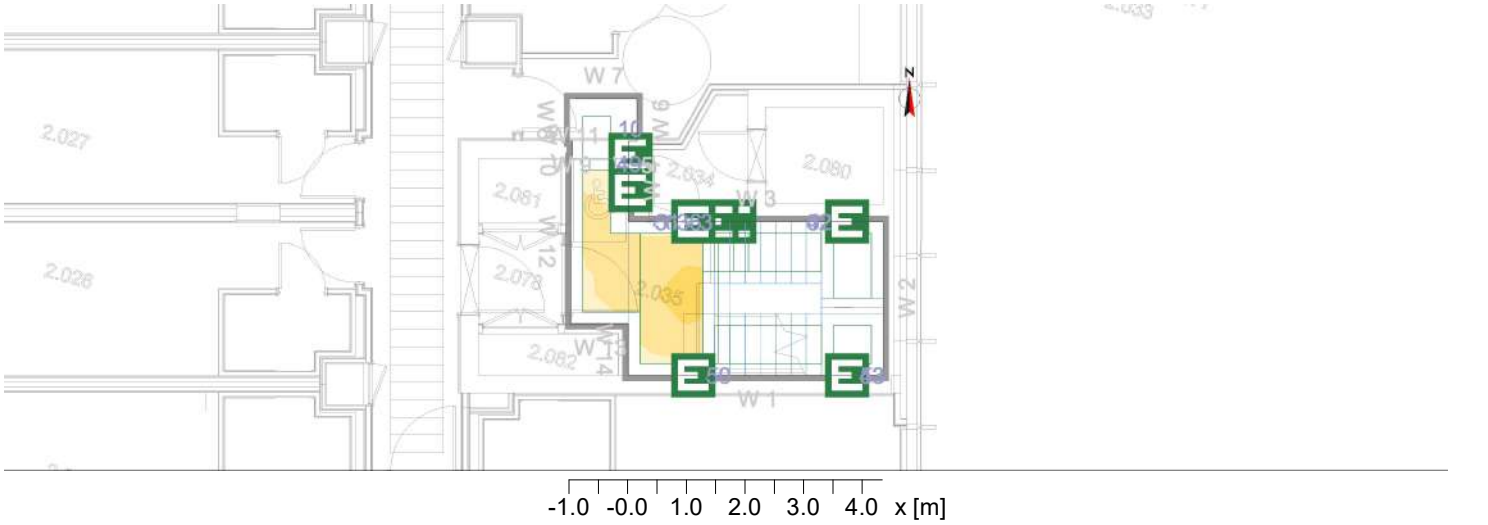
Average illuminance	$\bar{E}_m$	147 lx
Minimum illuminance	E_{min}	116 lx
Maximum illuminance	E_{max}	179 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.54 (0.65)

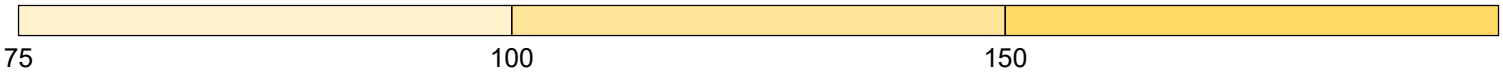
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.46 Result overview, Level 07





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

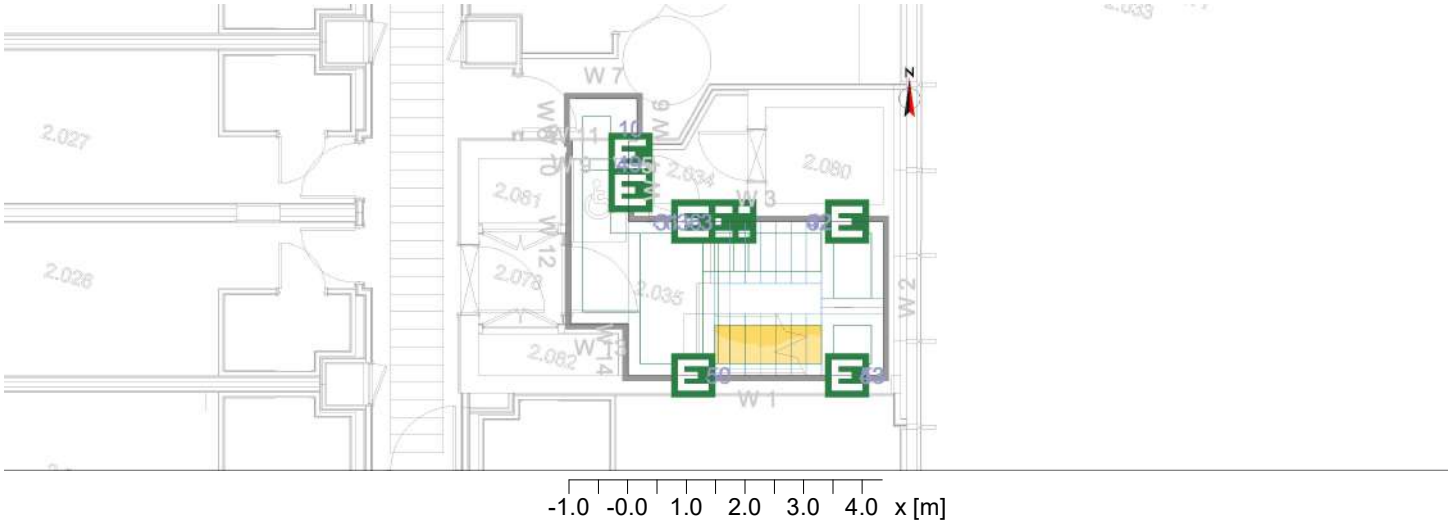
Average illuminance	$\bar{E}_m$	124 lx
Minimum illuminance	E_{min}	96 lx
Maximum illuminance	E_{max}	163 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.71 (0.59)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.47 Result overview, Tread (xix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	143 lx
Minimum illuminance	E_{min}	110 lx
Maximum illuminance	E_{max}	170 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.3 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.54 (0.65)

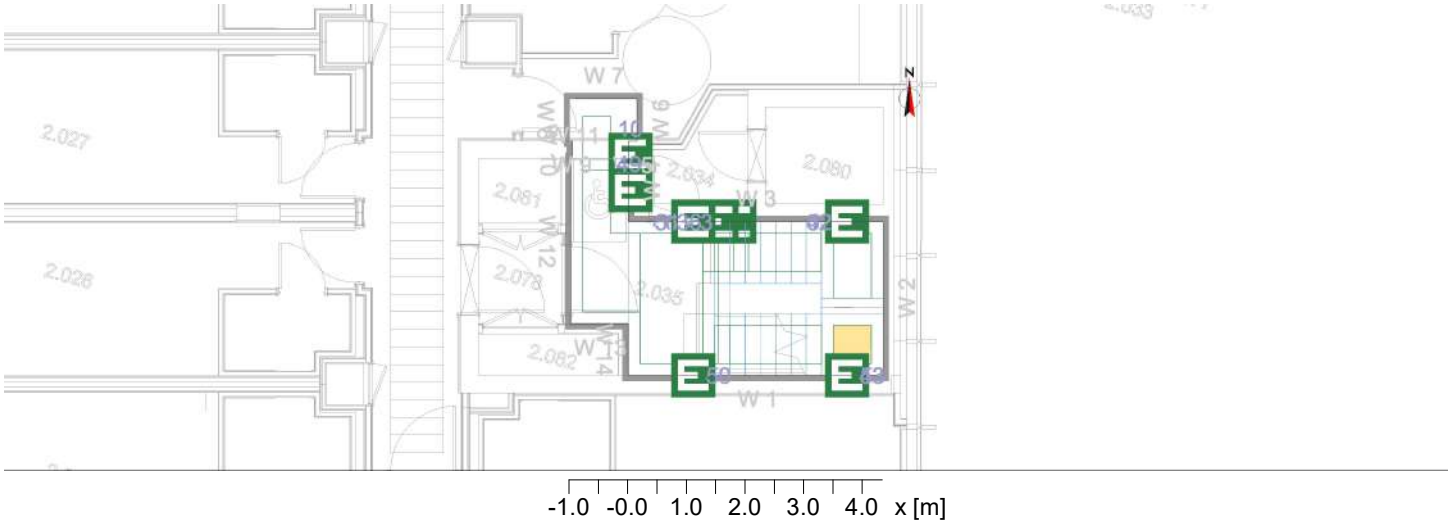
Type No.\Make

Thorn

2 51E x Order No. : -- Emergency Lighting --
Luminaire name : NOVS S 1900 830 DI HFI E3D WH
Equipment : 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency : 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.48 Result overview, Quarter Landing (xix)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	26.91 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	120 lx
Minimum illuminance	E_{min}	93 lx
Maximum illuminance	E_{max}	145 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.29 (0.77)
Diversity U_d	E_{min}/E_{max}	1:1.56 (0.64)

Type No.\Make

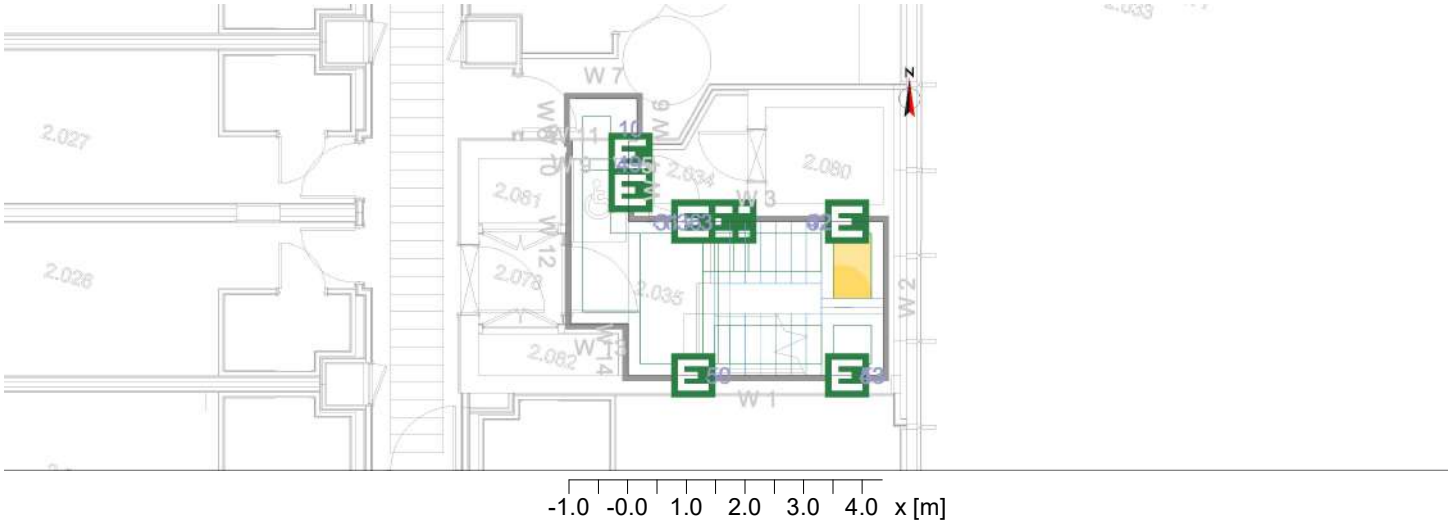
Thorn

2 51E x

Order No.	: -- Emergency Lighting --
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.49 Result overview, Quarter Landing (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	27.24 m
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

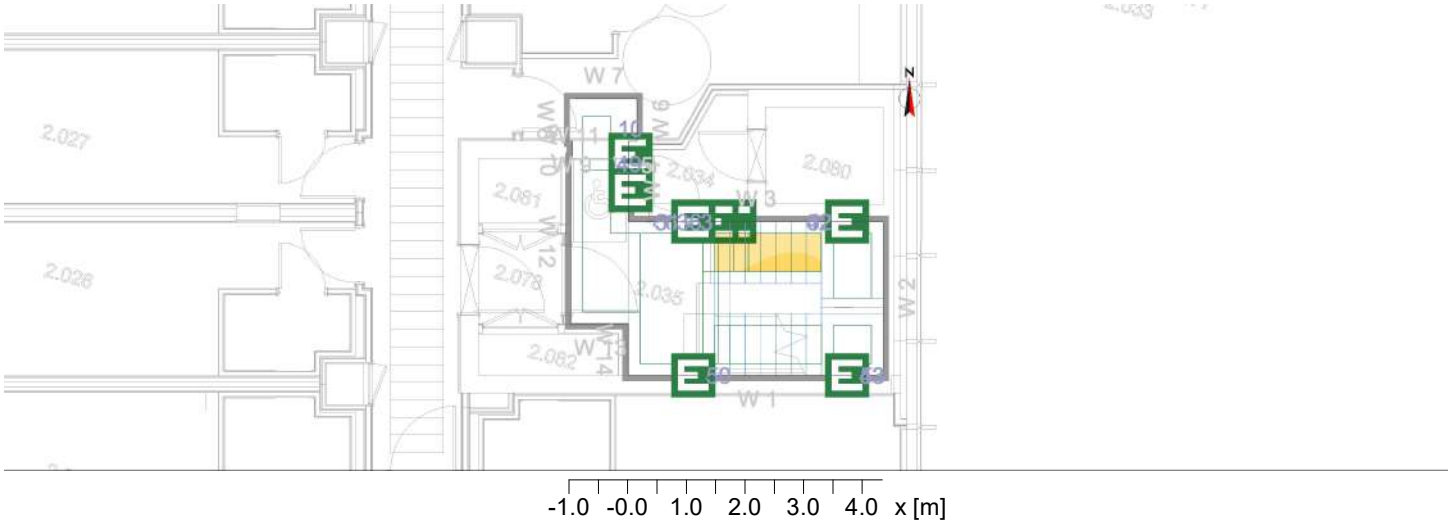
Average illuminance	$\bar{E}_m$	142 lx
Minimum illuminance	E_{min}	100 lx
Maximum illuminance	E_{max}	176 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.41 (0.71)
Diversity U_d	E_{min}/E_{max}	1:1.75 (0.57)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.50 Result overview, Tread (x)





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

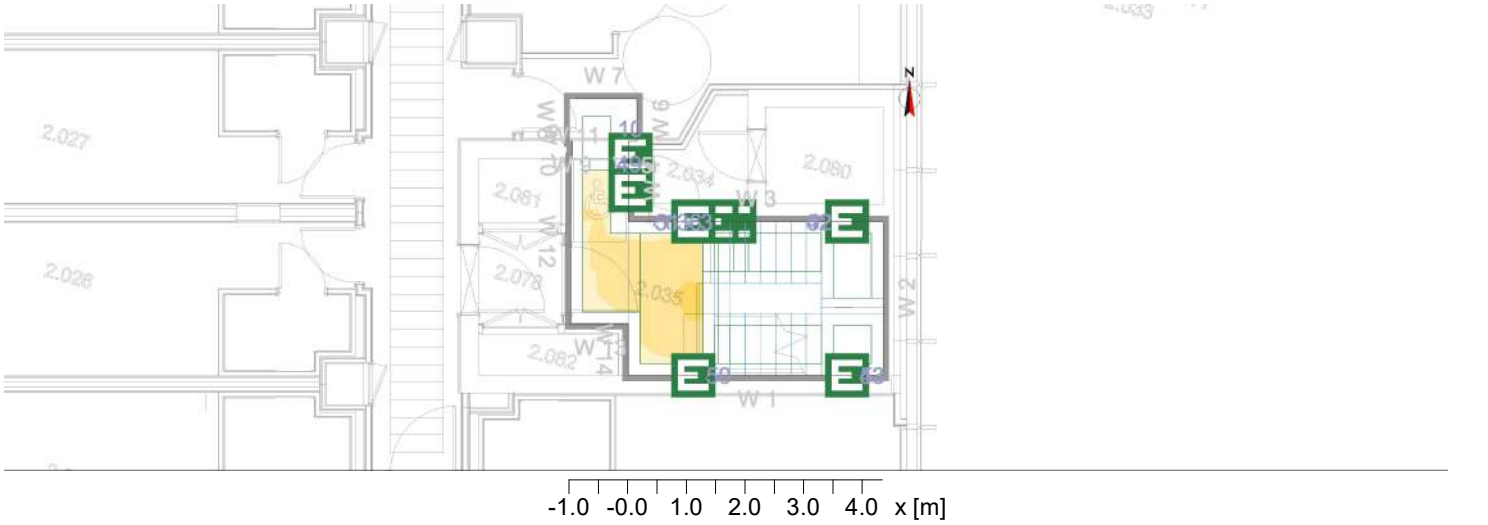
Average illuminance	$\bar{E}_m$	138 lx
Minimum illuminance	E_{min}	109 lx
Maximum illuminance	E_{max}	174 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.27 (0.79)
Diversity U_d	E_{min}/E_{max}	1:1.61 (0.62)

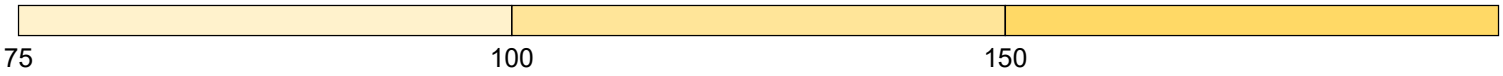
Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.51 Result overview, Level 08





Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	91086 lm
Total power	673.2 W
Total power per area (15.17 m²)	44.37 W/m²

Illuminance

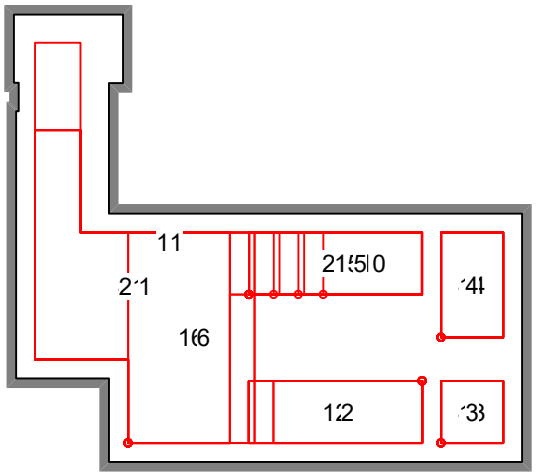
Average illuminance	$\bar{E}_m$	118 lx
Minimum illuminance	E_{min}	90 lx
Maximum illuminance	E_{max}	156 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.32 (0.76)
Diversity U_d	E_{min}/E_{max}	1:1.75 (0.57)

Type No.\Make

		Thorn	
2	51E x	Order No.	: -- Emergency Lighting --
		Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
		Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
		Emergency	: 180 lm (10.1 %)

4.1 Summary, Stair Core 4

4.1.52 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	5 x 7	118 lx	89 lx	159 lx	0.76	0.56
1.2	Tread (i)	12 x 4	147 lx	111 lx	173 lx	0.75	0.64
1.3	Quarter Landing (i)	4 x 4	129 lx	104 lx	149 lx	0.81	0.70
1.4	Quarter Landing (ii)	3 x 5	151 lx	114 lx	184 lx	0.75	0.62
1.5	Tread (ii)	10 x 4	163 lx	120 lx	197 lx	0.74	0.61
1.6	Level 00M	5 x 6	155 lx	120 lx	183 lx	0.77	0.65
1.7	Tread (iii)	12 x 4	148 lx	122 lx	167 lx	0.83	0.73
1.8	Quarter Landing (iii)	4 x 4	125 lx	97 lx	152 lx	0.78	0.64
1.9	Quarter Landing (iv)	3 x 5	150 lx	108 lx	184 lx	0.72	0.59
1.10	Tread (iv)	5 x 3	160 lx	124 lx	191 lx	0.78	0.65
1.11	Level 01	14 x 20	113 lx	58 lx	164 lx	0.52	0.35
1.12	Tread (v)	15 x 4	138 lx	104 lx	162 lx	0.76	0.64
1.13	Quarter Landing (v)	4 x 4	116 lx	86 lx	141 lx	0.75	0.61
1.14	Quarter Landing (vi)	3 x 5	141 lx	102 lx	174 lx	0.72	0.58
1.15	Tread (vi)	12 x 4	149 lx	114 lx	178 lx	0.77	0.64
1.16	Level 01M	4 x 6	127 lx	96 lx	155 lx	0.76	0.62
1.17	Tread (vii)	15 x 4	134 lx	98 lx	159 lx	0.73	0.62
1.18	Quarter Landing (vii)	4 x 4	118 lx	94 lx	141 lx	0.80	0.67
1.19	Quarter Landing (viii)	3 x 5	135 lx	91 lx	172 lx	0.68	0.53
1.20	Tread (viii)	14 x 4	146 lx	110 lx	177 lx	0.75	0.62
1.21	Level 02	4 x 7	115 lx	92 lx	157 lx	0.80	0.59
1.22	Tread (ix)	15 x 4	144 lx	102 lx	170 lx	0.71	0.60
1.23	Quarter Landing (ix)	4 x 4	122 lx	99 lx	146 lx	0.81	0.68
1.24	Quarter Landing (x)	3 x 5	142 lx	101 lx	176 lx	0.71	0.57
1.25	Tread (x)	14 x 4	150 lx	116 lx	180 lx	0.78	0.65
1.26	Level 03	4 x 7	119 lx	94 lx	160 lx	0.79	0.59
1.27	Tread (xi)	15 x 4	145 lx	101 lx	172 lx	0.70	0.59
1.28	Quarter Landing (xi)	4 x 4	121 lx	97 lx	145 lx	0.81	0.67
1.29	Quarter Landing (xii)	3 x 5	138 lx	95 lx	174 lx	0.69	0.55
1.30	Tread (xii)	14 x 4	148 lx	117 lx	179 lx	0.79	0.65
1.31	Level 04	4 x 7	117 lx	93 lx	158 lx	0.80	0.59
1.32	Tread (xiii)	15 x 4	143 lx	105 lx	171 lx	0.73	0.62

4.1 Summary, Stair Core 4

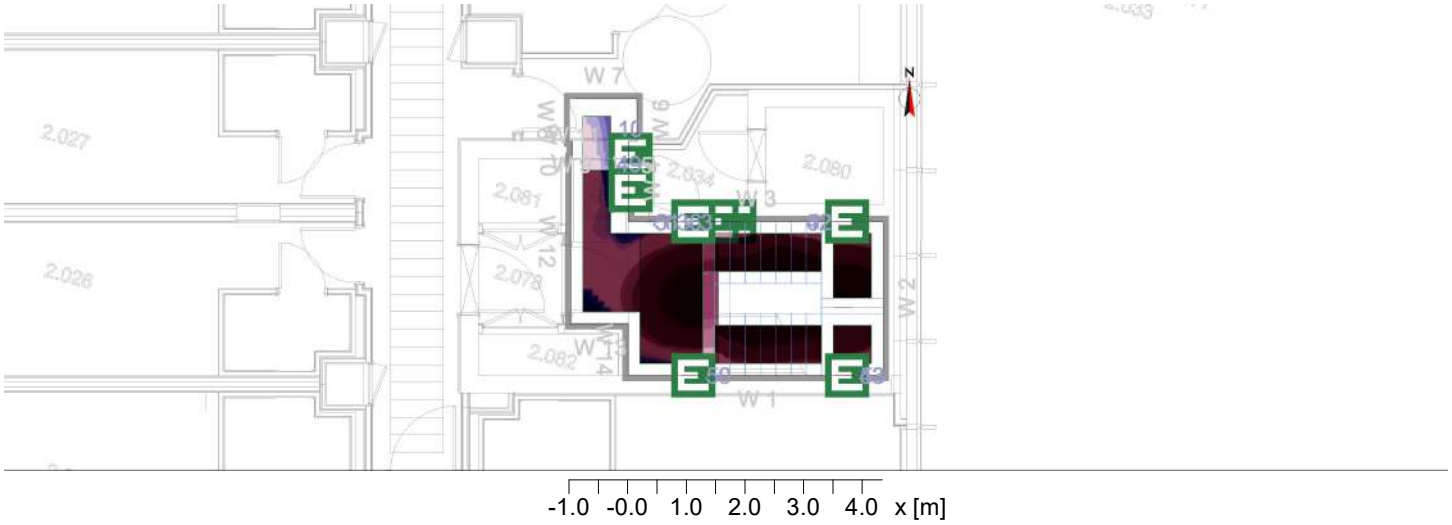
4.1.52 Result overview, Ref Planes (1)

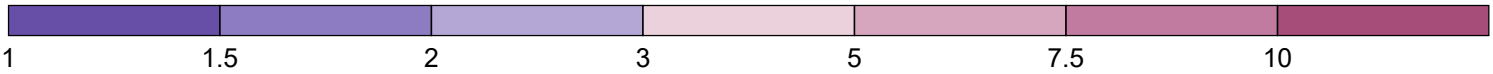
1.33	Quarter Landing (xiii)	4 x 4	120 lx	95 lx	143 lx	0.79	0.66
1.34	Quarter Landing (xiv)	3 x 5	136 lx	91 lx	172 lx	0.67	0.53
1.35	Tread (xiv)	14 x 4	146 lx	111 lx	177 lx	0.76	0.63
1.36	Level 05	4 x 7	116 lx	89 lx	157 lx	0.77	0.57
1.37	Tread (xv)	15 x 4	141 lx	100 lx	168 lx	0.71	0.60
1.38	Quarter Landing (xv)	4 x 4	115 lx	87 lx	142 lx	0.75	0.61
1.39	Quarter Landing (xvi)	3 x 5	142 lx	103 lx	175 lx	0.73	0.59
1.40	Tread (xvi)	14 x 4	147 lx	115 lx	177 lx	0.78	0.65
1.41	Level 06	4 x 7	126 lx	97 lx	165 lx	0.77	0.59
1.42	Tread (xvii)	15 x 4	140 lx	105 lx	169 lx	0.75	0.62
1.43	Quarter Landing (xvii)	4 x 4	119 lx	96 lx	142 lx	0.81	0.68
1.44	Quarter Landing (xviii)	3 x 5	139 lx	97 lx	172 lx	0.70	0.56
1.45	Tread (xviii)	14 x 4	147 lx	116 lx	179 lx	0.79	0.65
1.46	Level 07	4 x 7	124 lx	96 lx	163 lx	0.77	0.59
1.47	Tread (xix)	15 x 4	143 lx	110 lx	170 lx	0.77	0.65
1.48	Quarter Landing (xix)	4 x 4	120 lx	93 lx	145 lx	0.77	0.64
1.49	Quarter Landing (x)	3 x 5	142 lx	100 lx	176 lx	0.71	0.57
1.50	Tread (x)	14 x 4	138 lx	109 lx	174 lx	0.79	0.62
1.51	Level 08	4 x 7	118 lx	90 lx	156 lx	0.76	0.57
Summary			**131 lx**	**58 lx**	**197 lx**	**0.45**	**0.30**

4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)



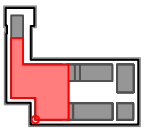


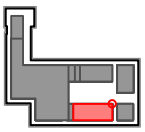
General

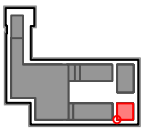
Calculation algorithm used	: Direct component
Maintenance factor	: 0.8
Height (phot.centre)	-variable-
Maximum I	: 58 cd

Anti panic area:

No.	Emin [lx]	Surface Emax [lx]	Ud
1 Level 00			
Calculation field: 2.31m x 3.29m (5 x 7 pts), Height = 0.00m			
1	1.24 lx	8.18 lx	1: 6.61
	>= 1 lx		>= 1 : 40
2 Tread (i)			
Calculation field: 1.84m x 0.65m (12 x 4 pts), Height = 1.16m			
2	3.36 lx	9.77 lx	1: 2.91
	>= 1 lx		>= 1 : 40
3 Quarter Landing (i)			
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 1.16m			
3	3.69 lx	8.03 lx	1: 2.18
	>= 1 lx		>= 1 : 40







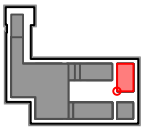
4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)

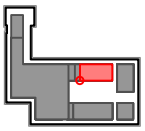
4 Quarter Landing (ii)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 1.48m

4	3.64 lx	10.24 lx	1: 2.82
	>= 1 lx		>= 1 : 40



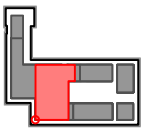
5 Tread (ii)
Calculation field: 1.53m x 0.65m (10 x 4 pts), Height = 2.47m

5	3.76 lx	11.01 lx	1: 2.93
	>= 1 lx		>= 1 : 40



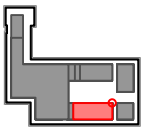
6 Level 00M
Calculation field: 1.59m x 2.21m (5 x 6 pts), Height = 2.47m

6	2.76 lx	9.33 lx	1: 3.39
	>= 1 lx		>= 1 : 40



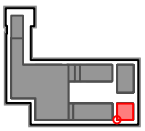
7 Tread (iii)
Calculation field: 1.84m x 0.65m (12 x 4 pts), Height = 3.62m

7	3.66 lx	8.53 lx	1: 2.33
	>= 1 lx		>= 1 : 40



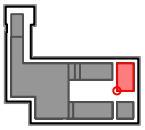
8 Quarter Landing (iii)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 3.62m

8	3.49 lx	7.88 lx	1: 2.26
	>= 1 lx		>= 1 : 40



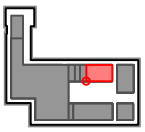
9 Quarter Landing (iv)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 3.95m

9	3.65 lx	10.49 lx	1: 2.87
	>= 1 lx		>= 1 : 40



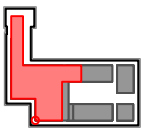
10 Tread (iv)
Calculation field: 1.23m x 0.65m (5 x 3 pts), Height = 4.77m

10	3.75 lx	10.84 lx	1: 2.89
	>= 1 lx		>= 1 : 40



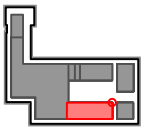
11 Level 01
Calculation field: 2.83m x 4.2m (14 x 20 pts), Height = 4.77m

11	1.03 lx	9.41 lx	1: 9.15
	>= 1 lx		>= 1 : 40



12 Tread (v)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 6.09m

12	3.30 lx	9.30 lx	1: 2.81
	>= 1 lx		>= 1 : 40



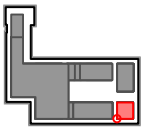
4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)

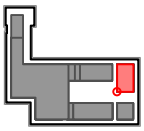
13 Quarter Landing (v)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 6.09m

13	3.38 lx	7.59 lx	1: 2.24
	>= 1 lx		>= 1 : 40



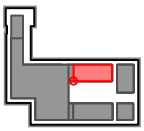
14 Quarter Landing (vi)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 6.43m

14	3.13 lx	10.13 lx	1: 3.24
	>= 1 lx		>= 1 : 40



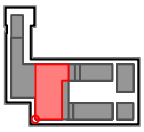
15 Tread (vi)
Calculation field: 1.84m x 0.65m (12 x 4 pts), Height = 7.59m

15	3.80 lx	10.31 lx	1: 2.71
	>= 1 lx		>= 1 : 40



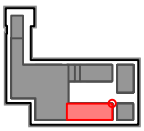
16 Level 01M
Calculation field: 1.33m x 2.21m (4 x 6 pts), Height = 7.59m

16	2.71 lx	9.12 lx	1: 3.37
	>= 1 lx		>= 1 : 40



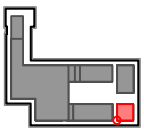
17 Tread (vii)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 8.91m

17	3.31 lx	9.31 lx	1: 2.81
	>= 1 lx		>= 1 : 40



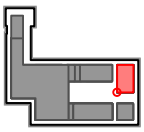
18 Quarter Landing (vii)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 8.91m

18	3.46 lx	7.66 lx	1: 2.22
	>= 1 lx		>= 1 : 40



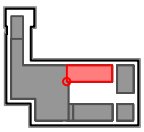
19 Quarter Landing (viii)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 9.24m

19	3.14 lx	10.21 lx	1: 3.26
	>= 1 lx		>= 1 : 40



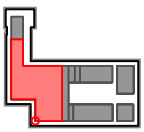
20 Tread (viii)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 10.57m

20	3.83 lx	10.04 lx	1: 2.62
	>= 1 lx		>= 1 : 40



21 Level 02
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 10.57m

21	1.24 lx	8.86 lx	1: 7.16
	>= 1 lx		>= 1 : 40



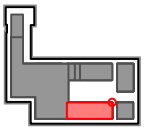
4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)

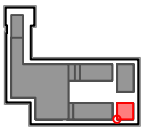
22 Tread (ix)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 11.91m

22	3.11 lx	9.90 lx	1: 3.18
	>= 1 lx		>= 1 : 40



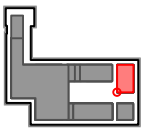
23 Quarter Landing (ix)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 11.91m

23	3.53 lx	7.87 lx	1: 2.23
	>= 1 lx		>= 1 : 40



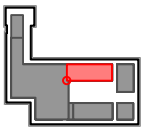
24 Quarter Landing (x)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 12.24m

24	3.14 lx	10.17 lx	1: 3.24
	>= 1 lx		>= 1 : 40



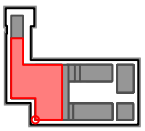
25 Tread (x)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 13.57m

25	3.83 lx	10.04 lx	1: 2.62
	>= 1 lx		>= 1 : 40



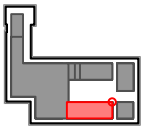
26 Level 03
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 13.57m

26	1.24 lx	8.86 lx	1: 7.16
	>= 1 lx		>= 1 : 40



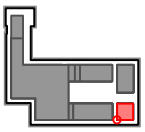
27 Tread (xi)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 14.91m

27	3.11 lx	9.90 lx	1: 3.18
	>= 1 lx		>= 1 : 40



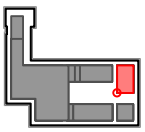
28 Quarter Landing (xi)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 14.91m

28	3.53 lx	7.87 lx	1: 2.23
	>= 1 lx		>= 1 : 40



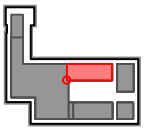
29 Quarter Landing (xii)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 15.24m

29	3.14 lx	10.17 lx	1: 3.24
	>= 1 lx		>= 1 : 40



30 Tread (xii)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 16.57m

30	3.83 lx	10.04 lx	1: 2.62
	>= 1 lx		>= 1 : 40



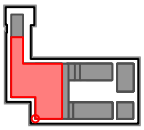
4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)

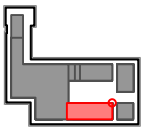
31 Level 04
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 16.57m

31	1.24 lx	8.86 lx	1: 7.16
	>= 1 lx		>= 1 : 40



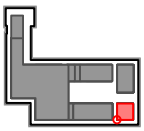
32 Tread (xiii)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 17.91m

32	3.11 lx	9.90 lx	1: 3.18
	>= 1 lx		>= 1 : 40



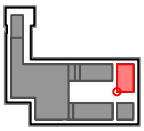
33 Quarter Landing (xiii)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 17.91m

33	3.53 lx	7.87 lx	1: 2.23
	>= 1 lx		>= 1 : 40



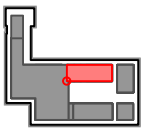
34 Quarter Landing (xiv)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 18.24m

34	3.14 lx	10.17 lx	1: 3.24
	>= 1 lx		>= 1 : 40



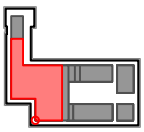
35 Tread (xiv)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 19.57m

35	3.83 lx	10.04 lx	1: 2.62
	>= 1 lx		>= 1 : 40



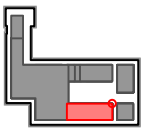
36 Level 05
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 19.57m

36	1.24 lx	8.86 lx	1: 7.16
	>= 1 lx		>= 1 : 40



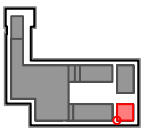
37 Tread (xv)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 20.91m

37	3.11 lx	9.81 lx	1: 3.15
	>= 1 lx		>= 1 : 40



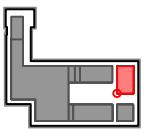
38 Quarter Landing (xv)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 20.91m

38	3.44 lx	7.76 lx	1: 2.26
	>= 1 lx		>= 1 : 40



39 Quarter Landing (xvi)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 21.24m

39	3.13 lx	10.05 lx	1: 3.22
	>= 1 lx		>= 1 : 40



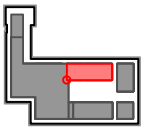
4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)

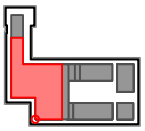
40 Tread (xvi)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 22.57m

40	3.88 lx	9.88 lx	1: 2.55
	>= 1 lx		>= 1 : 40



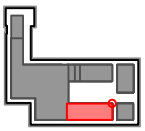
41 Level 06
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 22.57m

41	1.24 lx	8.86 lx	1: 7.16
	>= 1 lx		>= 1 : 40



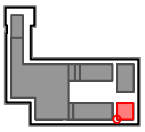
42 Tread (xvii)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 23.91m

42	3.35 lx	9.45 lx	1: 2.82
	>= 1 lx		>= 1 : 40



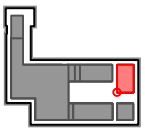
43 Quarter Landing (xvii)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 23.91m

43	3.36 lx	7.53 lx	1: 2.24
	>= 1 lx		>= 1 : 40



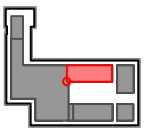
44 Quarter Landing (xviii)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 24.24m

44	3.32 lx	10.06 lx	1: 3.03
	>= 1 lx		>= 1 : 40



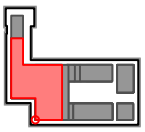
45 Tread (xviii)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 25.57m

45	3.97 lx	10.04 lx	1: 2.53
	>= 1 lx		>= 1 : 40



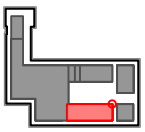
46 Level 07
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 25.57m

46	1.24 lx	8.86 lx	1: 7.16
	>= 1 lx		>= 1 : 40



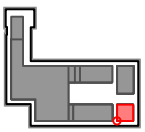
47 Tread (xix)
Calculation field: 2.15m x 0.65m (15 x 4 pts), Height = 26.91m

47	3.35 lx	9.60 lx	1: 2.87
	>= 1 lx		>= 1 : 40



48 Quarter Landing (xix)
Calculation field: 0.65m x 0.65m (4 x 4 pts), Height = 26.91m

48	3.39 lx	7.80 lx	1: 2.30
	>= 1 lx		>= 1 : 40



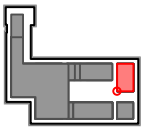
4 Stair Core 4

4.2 Summary, Stair Core 4

4.2.1.1 Result overview (emergency lighting)

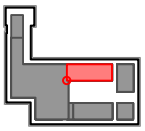
49 Quarter Landing (x)
Calculation field: 0.65m x 1.1m (3 x 5 pts), Height = 27.24m

49	3.60 lx	10.54 lx	1: 2.93
	>= 1 lx		>= 1 : 40



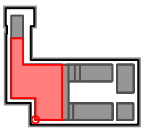
50 Tread (x)
Calculation field: 2.14m x 0.65m (14 x 4 pts), Height = 28.57m

50	3.53 lx	10.39 lx	1: 2.95
	>= 1 lx		>= 1 : 40



51 Level 08
Calculation field: 2.05m x 3.29m (4 x 7 pts), Height = 28.57m

51	1.24 lx	8.43 lx	1: 6.81
	>= 1 lx		>= 1 : 40



Type No.\Make

Thorn

2 51E x

Order No.	: -- Emergency Lighting --
Luminaire name	: NOVS S 1900 830 DI HFI E3D WH
Equipment	: 1 x NOVS_1900_HF 13.2 W / 1786 lm
Emergency	: 180 lm (10.1 %)