ALBANY ROAD, CHORLTON

Installation : Car Park Lighting

Project number : DM-MR-0324-030
Customer :
Processed by : Andrew Newman
Date : 14.03.2024

Project description:

Designed To Environmental Zone E3 Suburban (TBC)

Target Illuminace To EN 12464-2 Parking Areas Of Terraced And Apartment Houses 5lx 0.25 Uo

Maintenance Factor: 0.83

These plots represent specific ASD products under given conditions. Changes to environment, calculation software accuracy and on site measurement mean real installations may differ from these predictions. This design information constitutes guidance only.
Common design parameters have been used in order to carry out all calculations. If any part of the scheme or subsequent luminaires used within the scheme is deemed to be inappropriate, please contact us in order for re-calculations to be carried out, prior to an order being placed.
Please ensure that this lighting scheme complies with all requirements, and if further details/ calculations are required please contact ASD Lighting. Final quantities are to be confirmed prior to an order/installation.

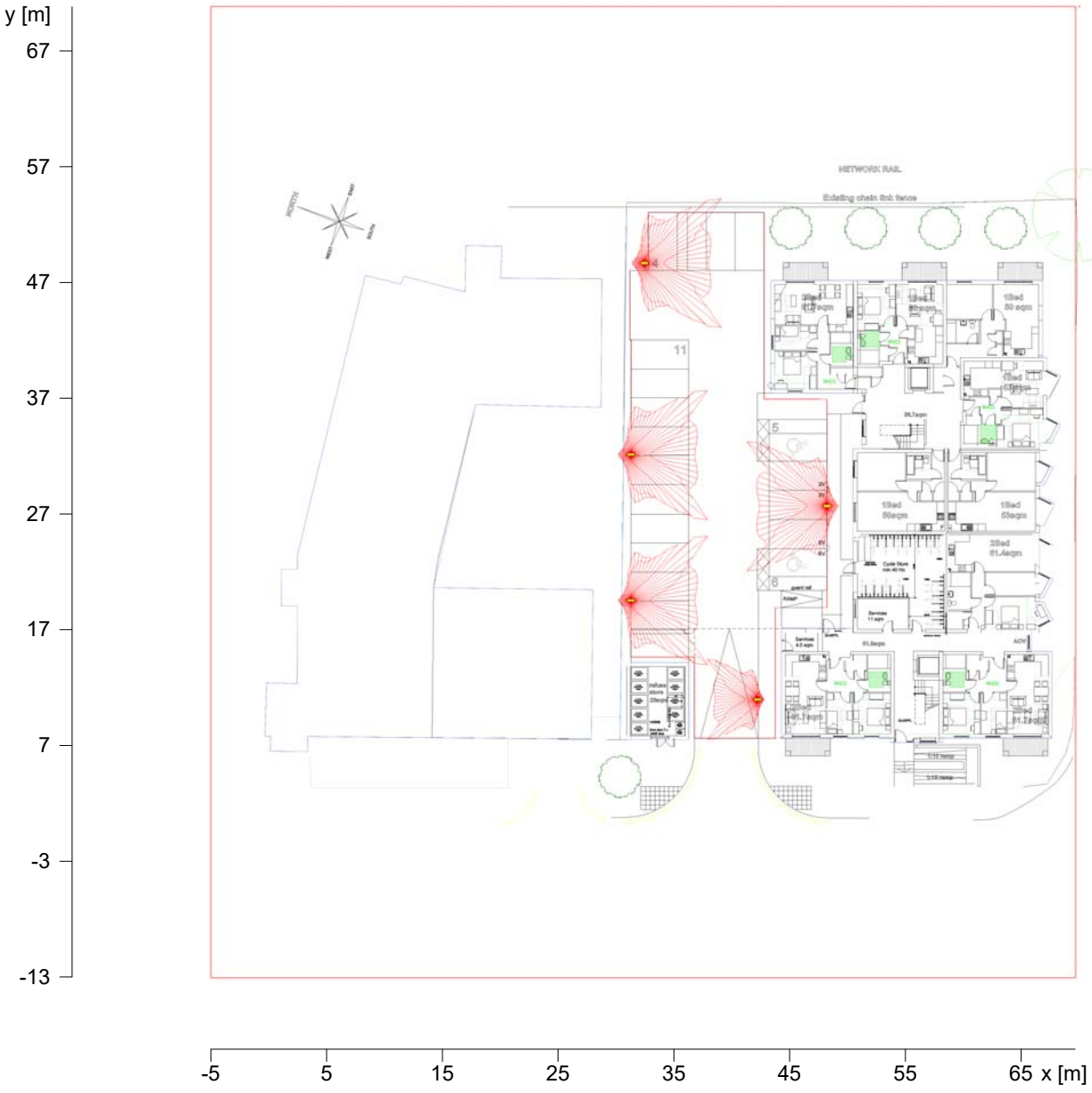
The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

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

Exterior 1

Description, Exterior 1

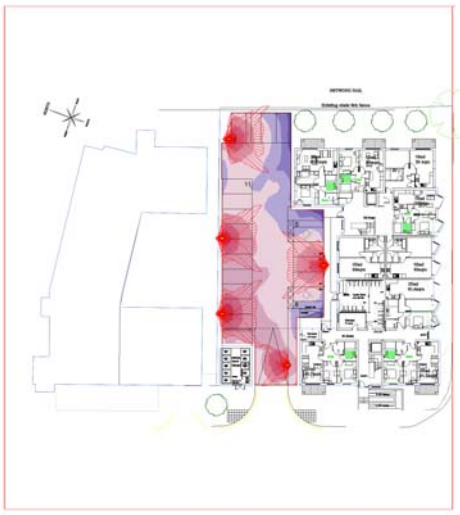
Floor plan

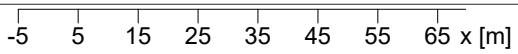


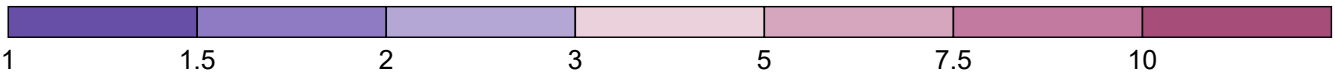
Exterior 1

Summary, Exterior 1

Result overview, Car Park







General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.83
Total luminous flux	5306.5 lm
Total power	48.5 W
Total power per area (6257.27 m²)	0.01 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	4.8 lx
Minimum illuminance	E_{min}	1.4 lx
Maximum illuminance	E_{max}	12.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.3 (0.3)
Diversity U_d	E_{min}/E_{max}	1:8.71 (0.11)

Type No.\Make

1 5 x

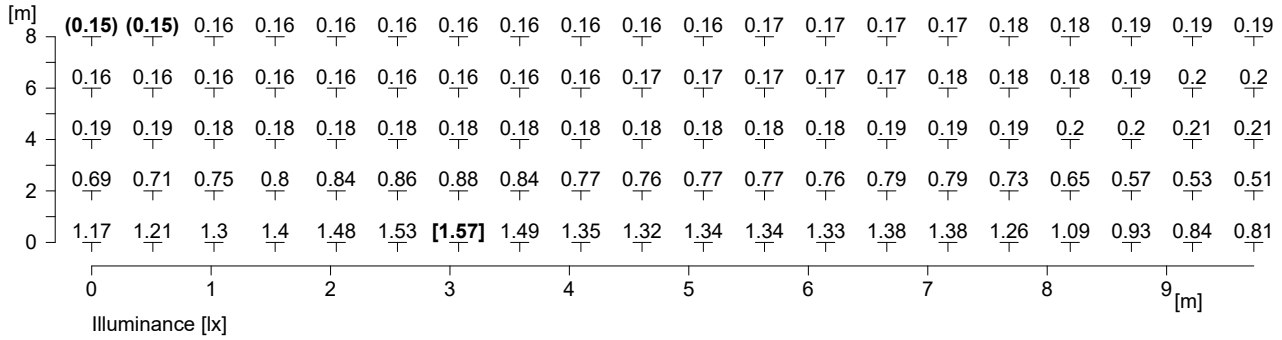
ASD Lighting PLC

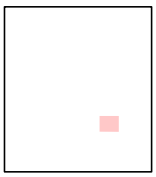
Order No. : HWD4-#4K08 300-F0.
Luminaire name : HWD4-#4K08 300-F0 Gen7
Equipment : 8 x LED / 132.663 lm

Exterior 1

Calculation results, Exterior 1

Table, New Apartment Block.41 (E)

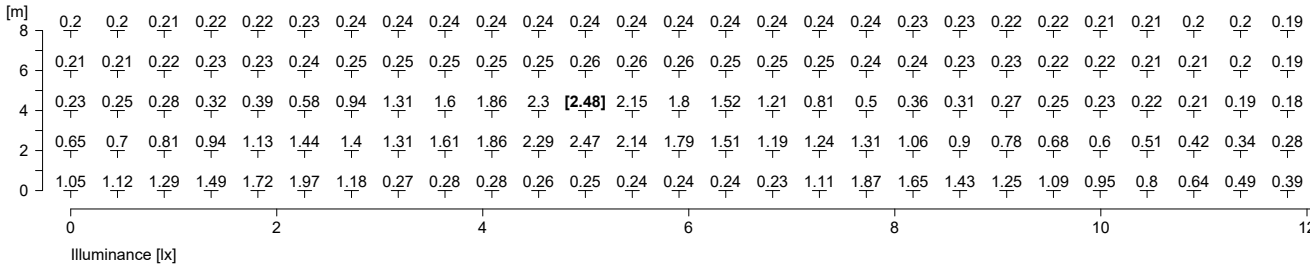


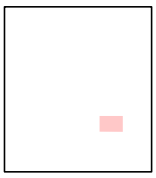


Average illuminance	$\bar{E}_m$	: 0.51 lx
Minimum illuminance	E_{min}	: 0.15 lx
Maximum illuminance	E_{max}	: 1.57 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 3.31 (0.30)
Diversity U_d	E_{min}/E_{max}	: 1 : 10.25 (0.10)

Calculation results, Exterior 1

Table, New Apartment Block.45 (E)





Part1

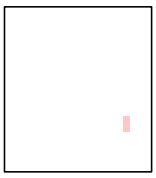
Average illuminance	$\bar{E}_m$	: 0.55 lx
Minimum illuminance	E_{min}	: 0.1 lx
Maximum illuminance	E_{max}	: 2.48 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 5.45 (0.18)
Diversity U_d	E_{min}/E_{max}	: 1 : 24.38 (0.04)

Calculation results, Exterior 1

Table, New Apartment Block.45 (E)

0.19	0.17	0.16	0.15	0.14	0.13	0.12	0.12
0.19	0.17	0.16	0.15	0.14	0.12	0.12	0.11
0.17	0.16	0.14	0.14	0.12	0.11	**(0.1)**	**(0.1)**
0.24	0.21	0.19	0.17	0.16	0.15	0.14	0.13
0.32	0.27	0.24	0.22	0.2	0.19	0.17	0.17

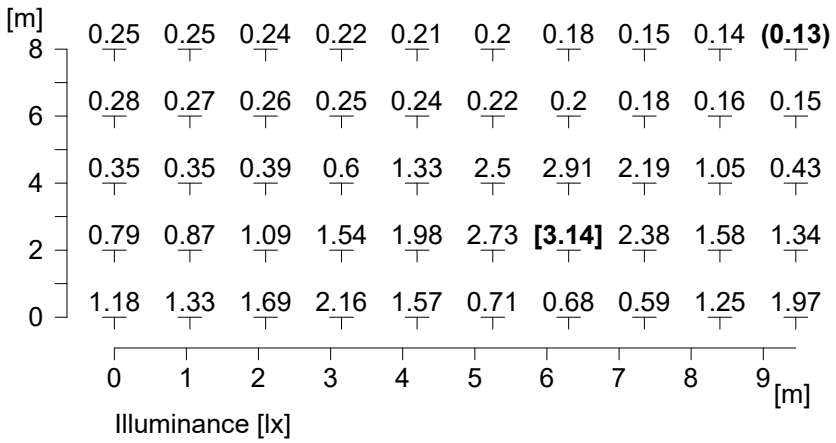
2 14 [m]



Part2

Calculation results, Exterior 1

Table, New Apartment Block.47 (E)



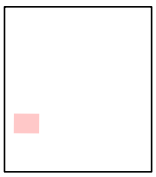
Average illuminance	$\bar{E}_m$	: 0.94 lx
Minimum illuminance	E_{min}	: 0.13 lx
Maximum illuminance	E_{max}	: 3.14 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 7.25 (0.14)
Diversity U_d	E_{min}/E_{max}	: 1 : 24.30 (0.04)

Calculation results, Exterior 1

Table, The Quadrangle.6 (E)

[m]															
10	0.08	0.08	0.1	0.12	0.14	0.15	0.16	0.18	0.19	0.2	0.21	0.22	0.23	0.24	0.24
8	0.07	0.07	0.09	0.11	0.12	0.14	0.17	0.19	0.2	0.22	0.23	0.25	0.26	0.28	0.28
6	0.14	0.15	0.17	0.19	0.2	0.23	0.25	0.26	0.27	0.29	0.33	0.34	0.33	0.34	0.34
4	0.13	0.14	0.16	0.18	0.21	0.27	0.39	0.53	0.66	0.86	0.6	0.2	0.19	0.19	0.19
2	0.02	0.03	0.05	0.07	0.12	0.23	0.45	0.72	1	**[1.37]**	0.8	**(0.01)**	**(0.01)**	0.02	0.02
0	0	2	4	6	8	10	12 [m]								

Illuminance [lx]



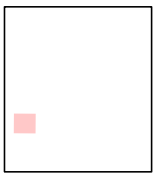
Average illuminance	$\bar{E}_m$	: 0.25 lx
Minimum illuminance	E_{min}	: 0.01 lx
Maximum illuminance	E_{max}	: 1.37 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 30.36 (0.03)
Diversity U_d	E_{min}/E_{max}	: 1 : 165.09 (0.01)

Calculation results, Exterior 1

Table, The Quadrangle.10 (E)

[m]	0	1	2	3	4	5	6	7	8	9	10	11
10	0.18	0.18	0.17	0.16	0.15	0.15	0.14	0.14	0.13	0.13	0.13	0.13	0.12	0.12	0.12
8	0.2	0.19	0.18	0.17	0.17	0.16	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.13	0.13
6	0.23	0.22	0.21	0.2	0.19	0.18	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16
4	0.29	0.28	0.26	0.24	0.23	0.21	0.2	0.18	0.17	0.16	0.16	0.15	0.15	0.14	0.14
2	0.59	0.51	0.41	0.35	0.31	0.29	0.28	0.28	0.29	0.34	0.48	0.73	0.91	1.11	**[1.27]**
0	0.95	0.83	0.64	0.51	0.41	0.36	0.38	0.44	0.53	0.66	0.9	**[1.27]**	1.19	1.06	1.22
	1.06	0.95	0.77	0.6	0.44	0.36	0.4	0.51	0.65	0.79	0.97	1.21	0.68	**(0.01)**	**(0.01)**

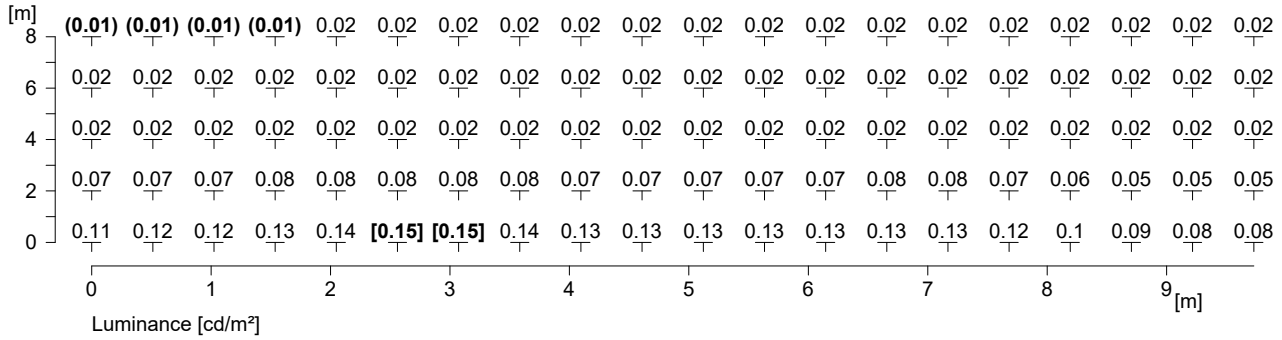
Illuminance [lx]



Average illuminance	$\bar{E}_m$	: 0.37 lx
Minimum illuminance	E_{min}	: 0.01 lx
Maximum illuminance	E_{max}	: 1.27 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 43.62 (0.02)
Diversity U_d	E_{min}/E_{max}	: 1 : 149.45 (0.01)

Calculation results, Exterior 1

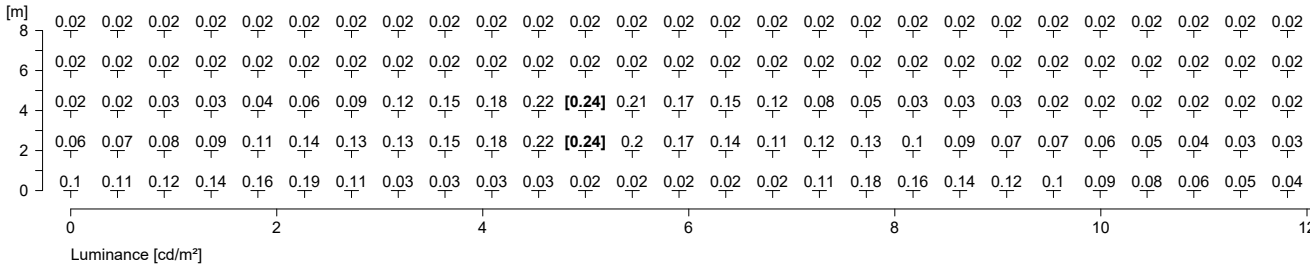
Table, New Apartment Block.41 (L)

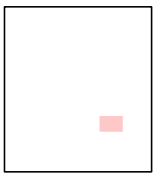


Average luminance	$\bar{L}_m$	: 0.05 cd/m²
Minimum luminance	L_{min}	: 0.01 cd/m²
Maximum luminance	L_{max}	: 0.15 cd/m²

Calculation results, Exterior 1

Table, New Apartment Block.45 (L)



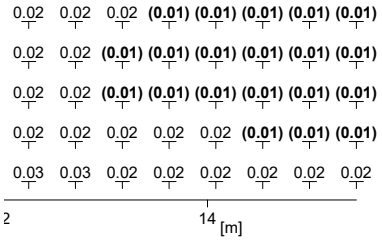


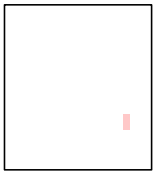
Part1

Average luminance	$\bar{L}_m$	: 0.05 cd/m²
Minimum luminance	L_{min}	: 0.01 cd/m²
Maximum luminance	L_{max}	: 0.24 cd/m²

Calculation results, Exterior 1

Table, New Apartment Block.45 (L)

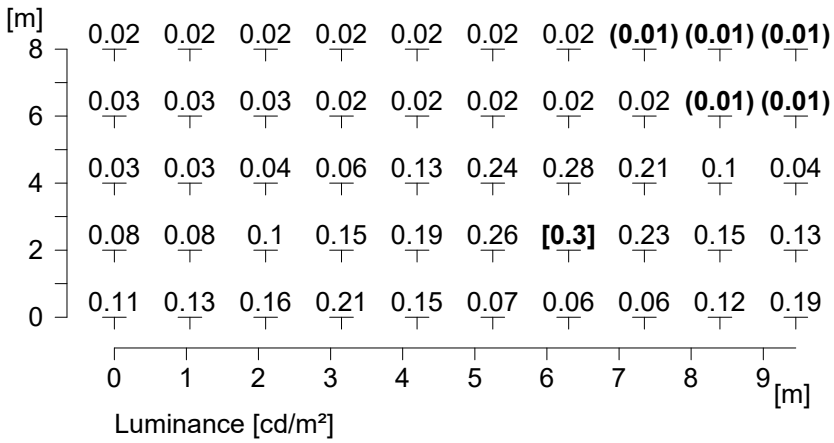




Part2

Calculation results, Exterior 1

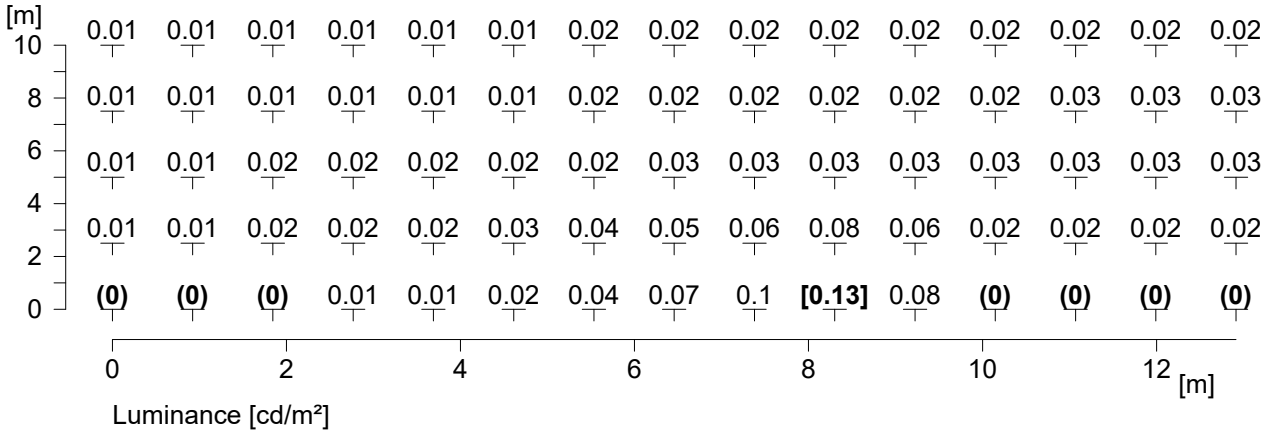
Table, New Apartment Block.47 (L)



Average luminance	$\bar{L}_m$	: 0.09 cd/m²
Minimum luminance	L_{min}	: 0.01 cd/m²
Maximum luminance	L_{max}	: 0.3 cd/m²

Calculation results, Exterior 1

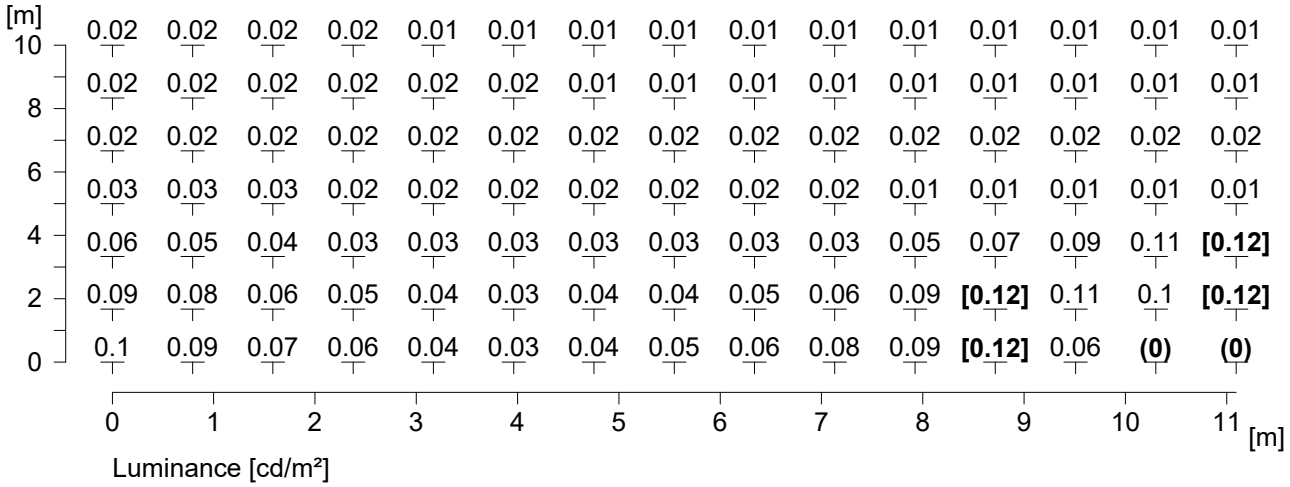
Table, The Quadrangle.6 (L)

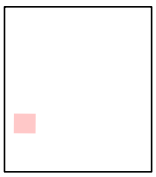


Average luminance	$\bar{L}_m$	: 0.02 cd/m²
Minimum luminance	L_{min}	: 0 cd/m²
Maximum luminance	L_{max}	: 0.13 cd/m²

Calculation results, Exterior 1

Table, The Quadrangle.10 (L)

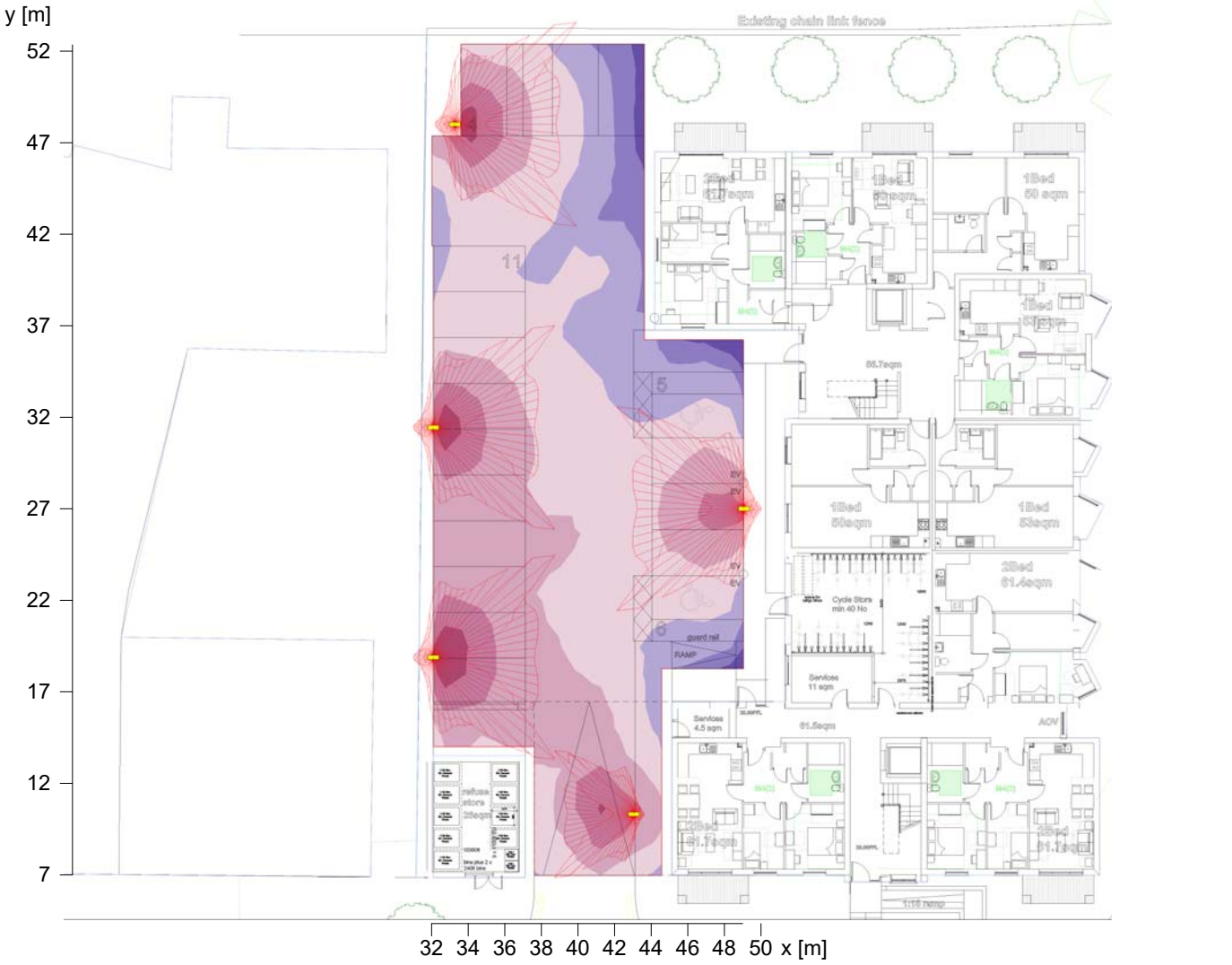




Average luminance	$\bar{L}_m$	: 0.04 cd/m²
Minimum luminance	L_{min}	: 0 cd/m²
Maximum luminance	L_{max}	: 0.12 cd/m²

Calculation results, Exterior 1

Pseudo colours, Car Park (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 4.8 lx
Minimum illuminance	E_{min}	: 1.4 lx
Maximum illuminance	E_{max}	: 12.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 3.30 (0.30)
Diversity U_d	E_{min}/E_{max}	: 1 : 8.71 (0.11)