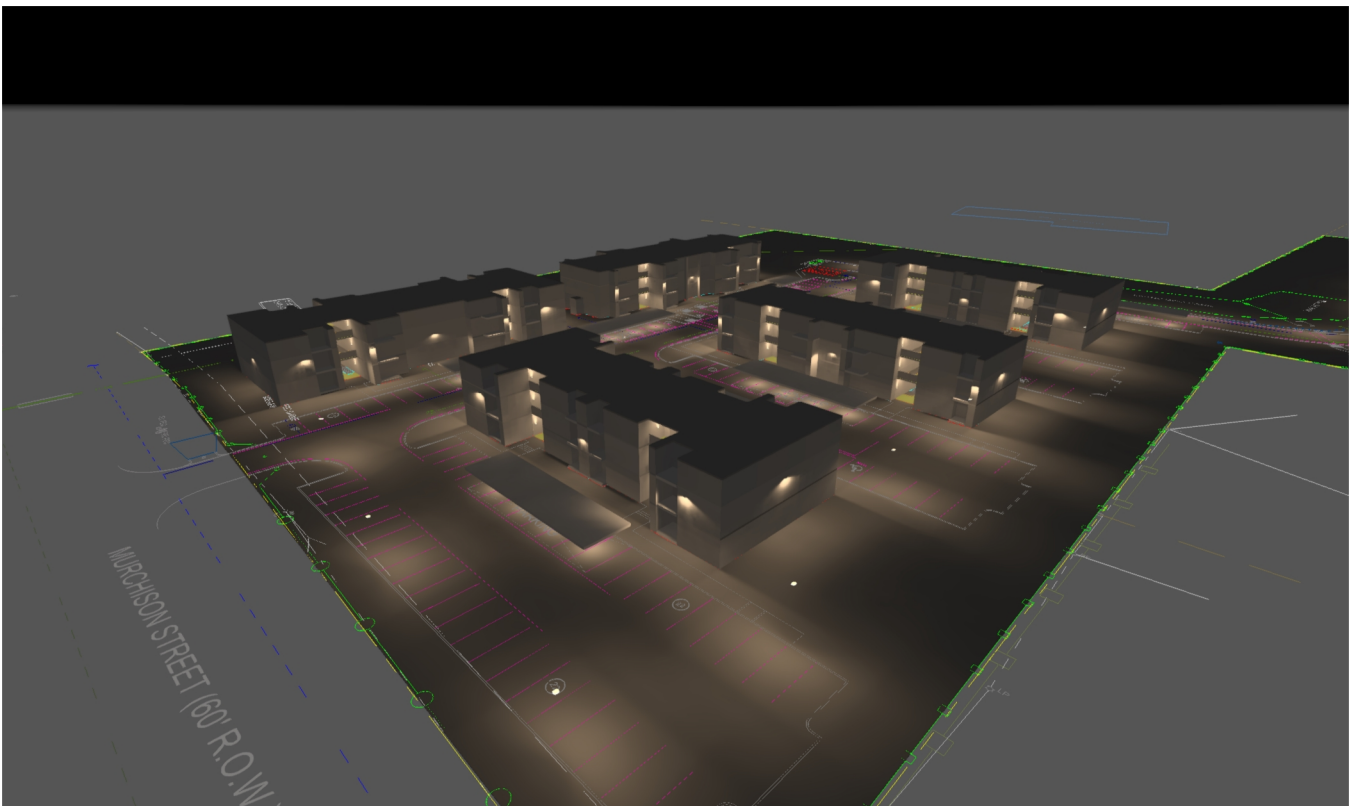


The Overlook



This photometric report will be generated using methods recommended by the Illuminating Engineering Society of North America (IESNA). The calculations in this report will be based on data provided by a third party. The accuracy of this photometric report is dependent on the accuracy of the data provided. Enduser environment and application (including, but not limited to voltage variation and dirt accumulation) can cause actual photometric performance to differ from the performance calculated using the data provided. This report will be provided without warranty as to accuracy, completeness, reliability, or otherwise. In no event will Access Fixtures be responsible for any loss resulting from any use of this report.

Preliminary remarks

This photometric report will be generated using methods recommended by the Illuminating Engineering Society of North America (IESNA). The calculations in this report will be based on data provided by a third party. The accuracy of this photometric report is dependent on the accuracy of the data provided. Enduser environment and application (including, but not limited to voltage variation and dirt accumulation) can cause actual photometric performance to differ from the performance calculated using the data provided. This report will be provided without warranty as to accuracy, completeness, reliability, or otherwise. In no event will Access Fixtures be responsible for any loss resulting from any use of this report.

Notes on planning:

The energy consumption quantities do not take into account light scenes and their dimming levels.

Cover page 1
Preliminary remarks 2
Content 3
Description 6
Luminaire list 14

Site 1

Calculation objects 15
B7 Parking / Perpendicular illuminance (adaptive) 18
B6 Parking / Perpendicular illuminance (adaptive) 19
B5 Parking / Perpendicular illuminance (adaptive) 20
Road (lower part) / Perpendicular illuminance (adaptive) 21
Road (upper part, B2, B3, B4) / Perpendicular illuminance (adaptive) 22
Road (B1 & Clubhouse) / Perpendicular illuminance (adaptive) 23
Pool / Grill Area / Perpendicular illuminance (adaptive) 24

Site 1 - Building 1 - Storey 1

Staircase

Summary 25

Site 1 - Building 1 - Storey 3

Staircase

Summary 27

Site 1 - Building 2 - Storey 1

Staircase 1

Summary 29

Site 1 - Building 2 - Storey 3

Staircase 1

Summary 31

Site 1 - Building 3 - Storey 1

Staircase 1

Summary 33

Site 1 - Building 3 - Storey 3

Staircase 1

Summary35

Site 1 - Building 5 - Storey 1

Staircase 1

Summary37

Site 1 - Building 5 - Storey 3

Staircase 1

Summary39

Site 1 - Building 6 - Storey 1

Staircase 1

Summary41

Site 1 - Building 6 - Storey 3

Staircase 1

Summary43

Site 1 - Building 7 - Storey 1

Staircase 1

Summary45

Site 1 - Building 7 - Storey 3

Staircase 1

Summary47

Site 1 - Building 8 - Storey 1

Staircase 1

Summary49

Site 1 - Building 8 - Storey 3

Staircase 1

Summary51

Site 1 - Building 9 - Storey 1

Staircase 1

Summary53

Site 1 - Building 9 - Storey 3

Staircase 1

Summary55

Site 1 - Building 4 - Storey 1

Staircase 1

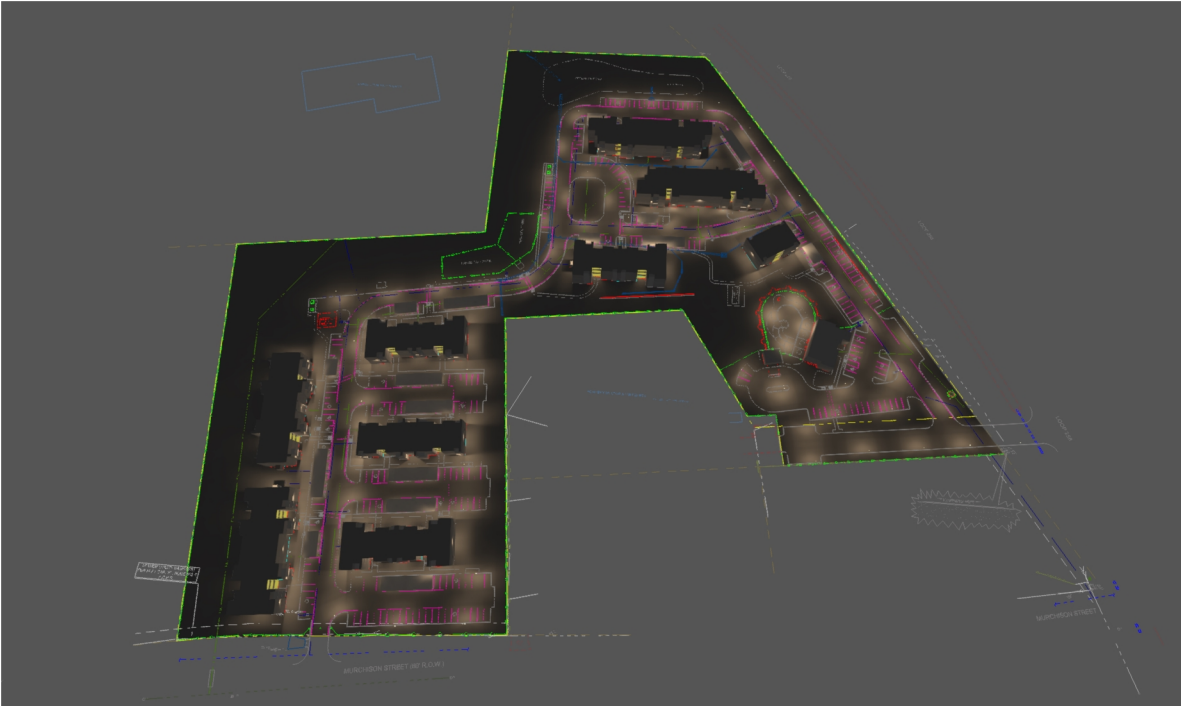
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Site 1 - Building 4 - Storey 3

Staircase 1

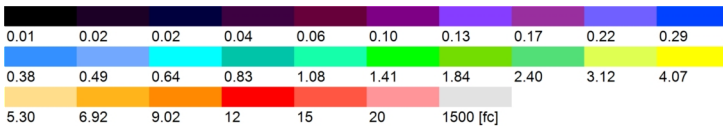
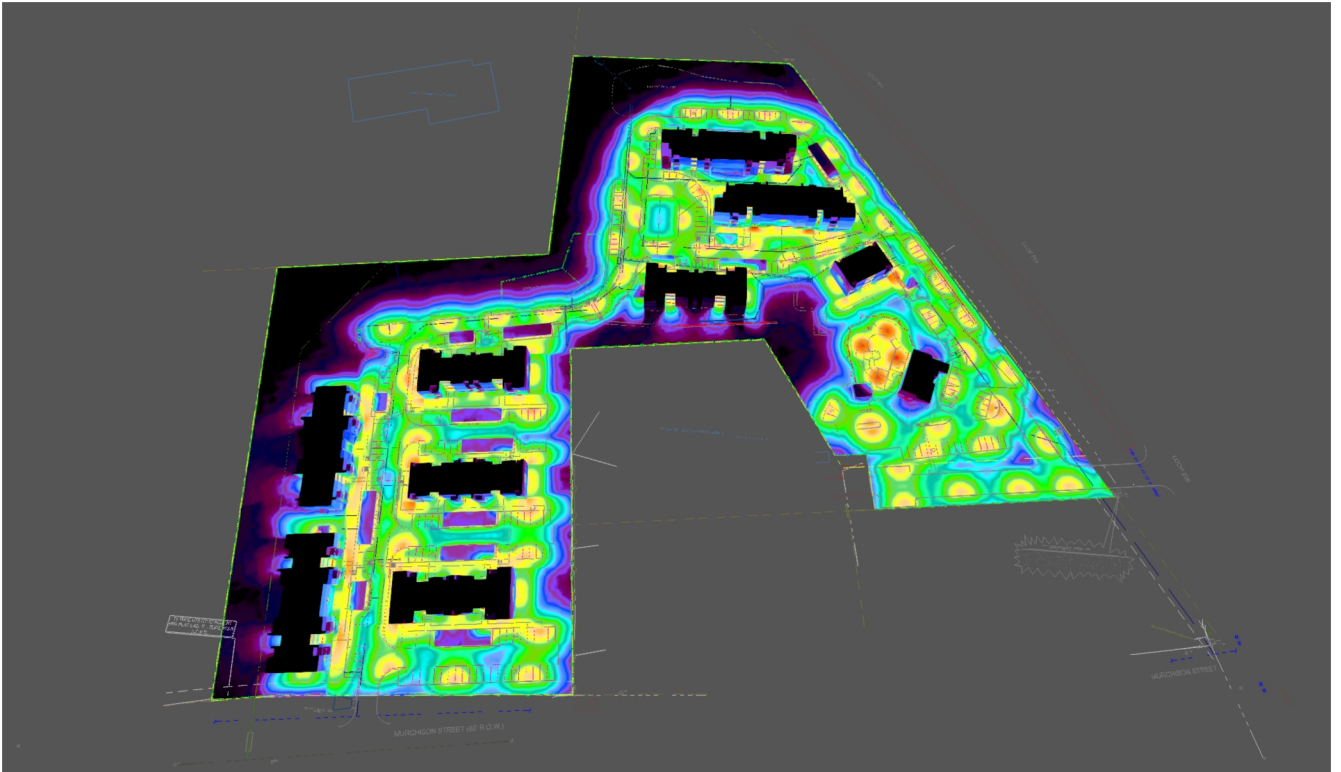
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Glossary61

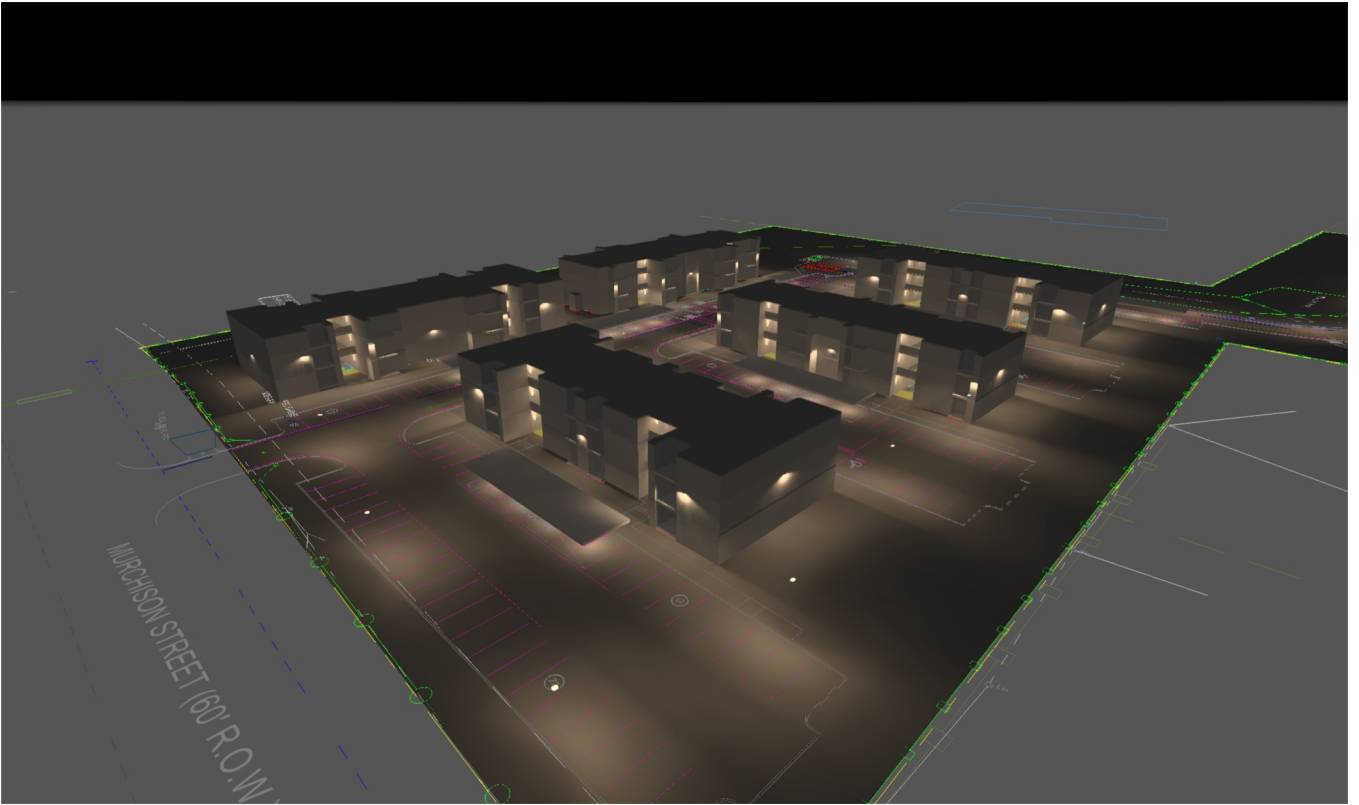


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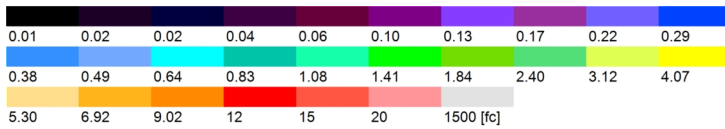
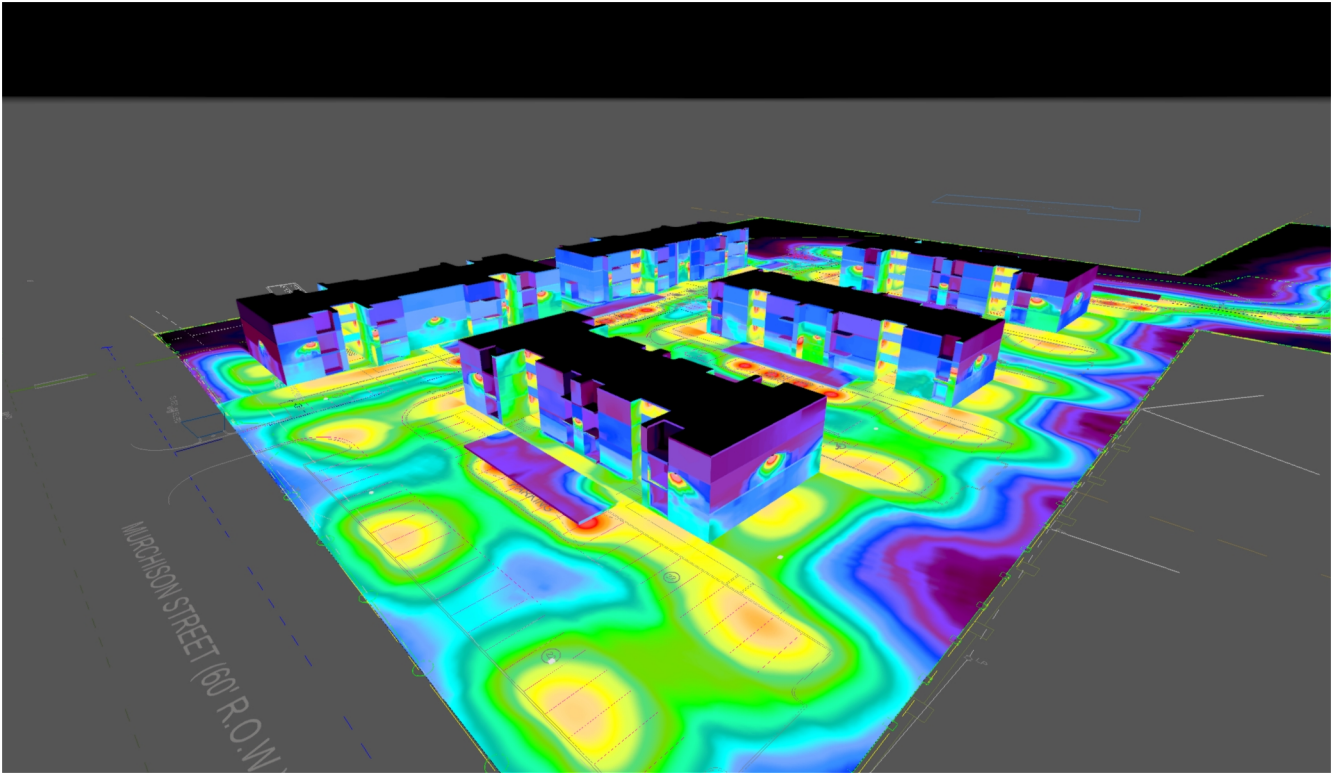
Images



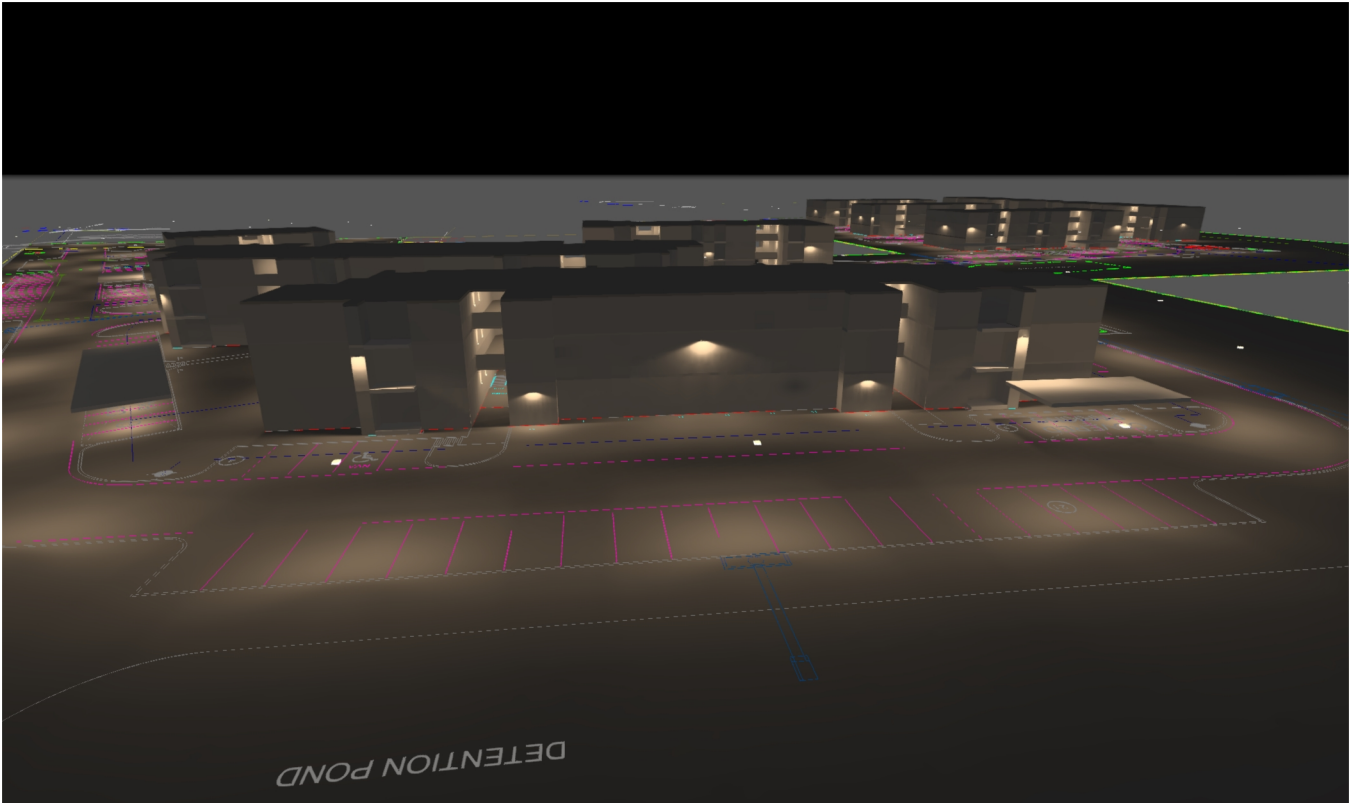
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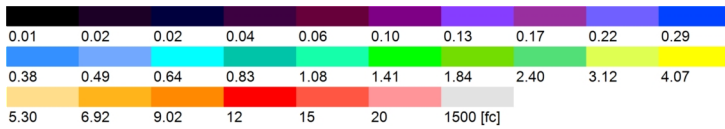
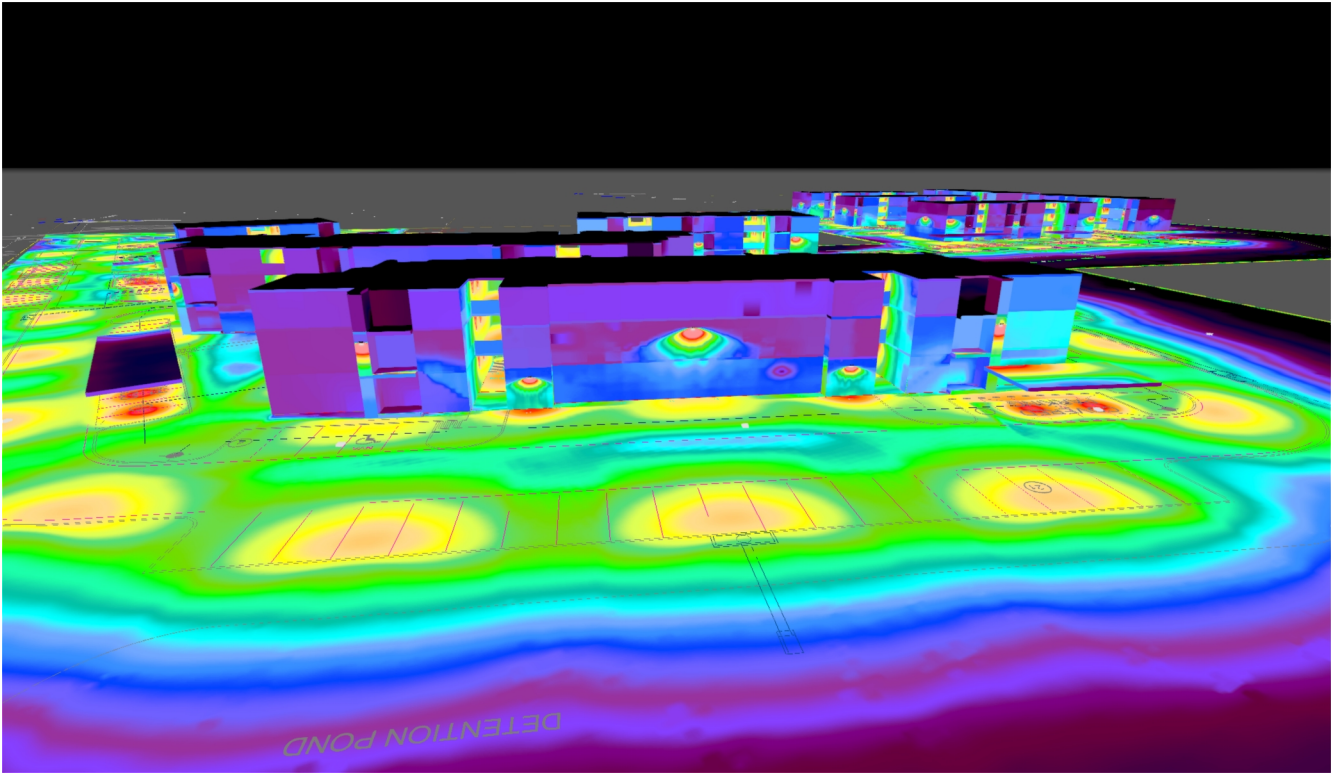
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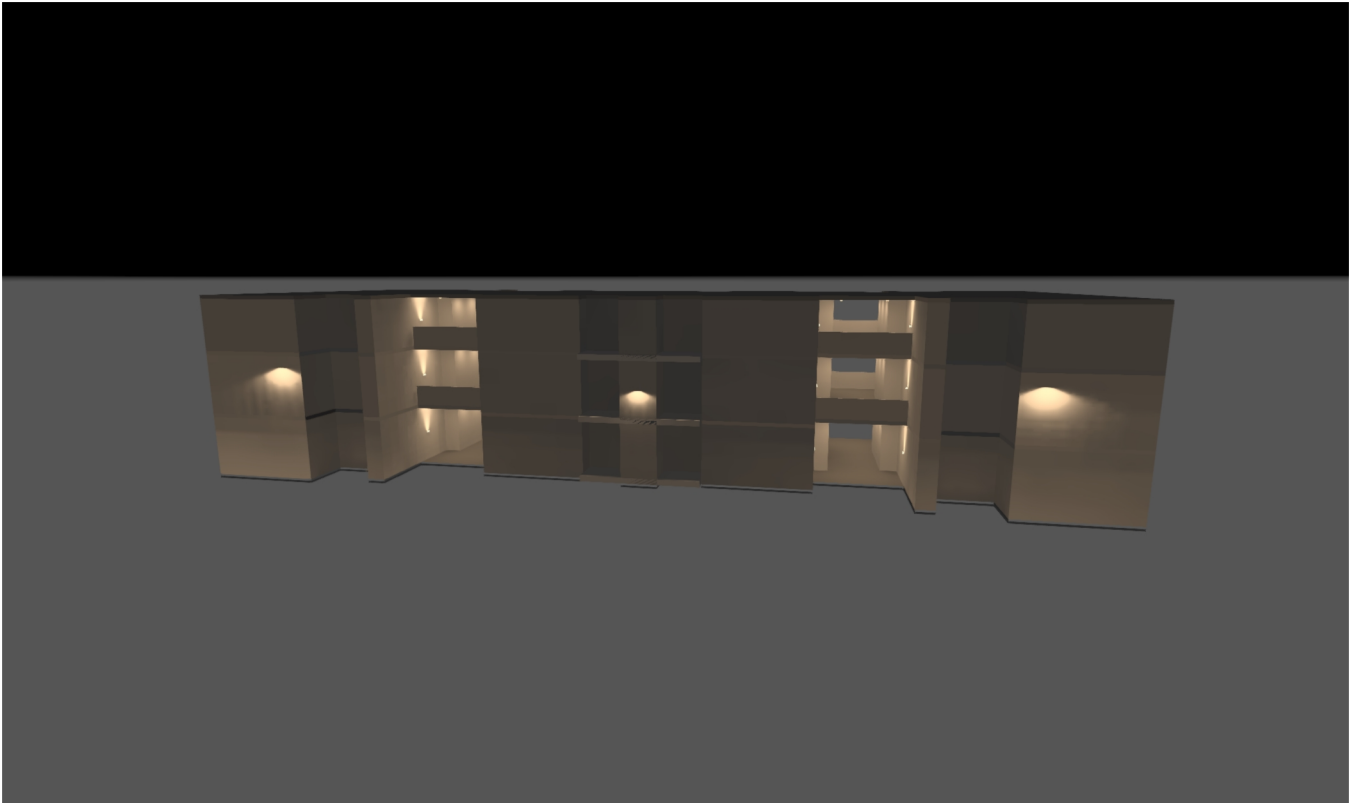
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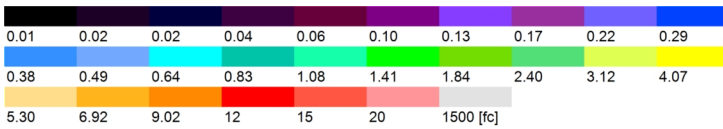
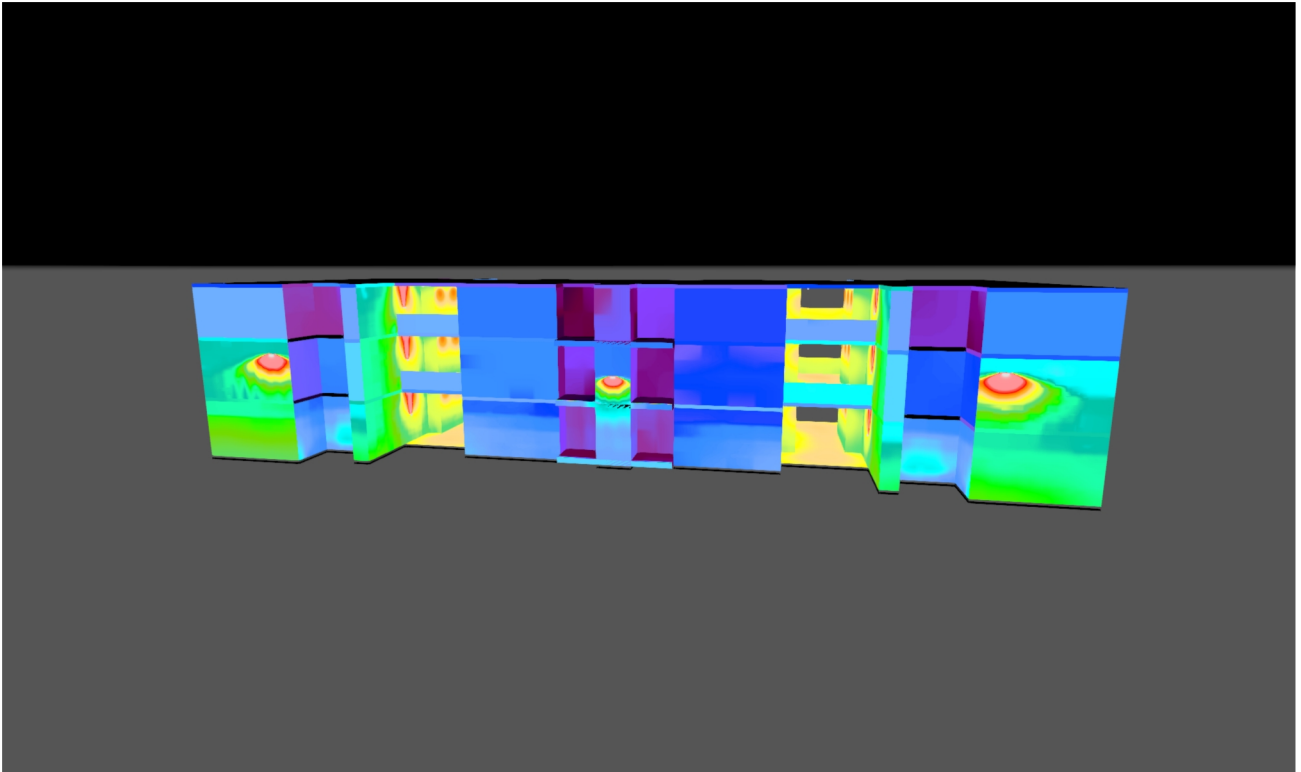
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Images



Images



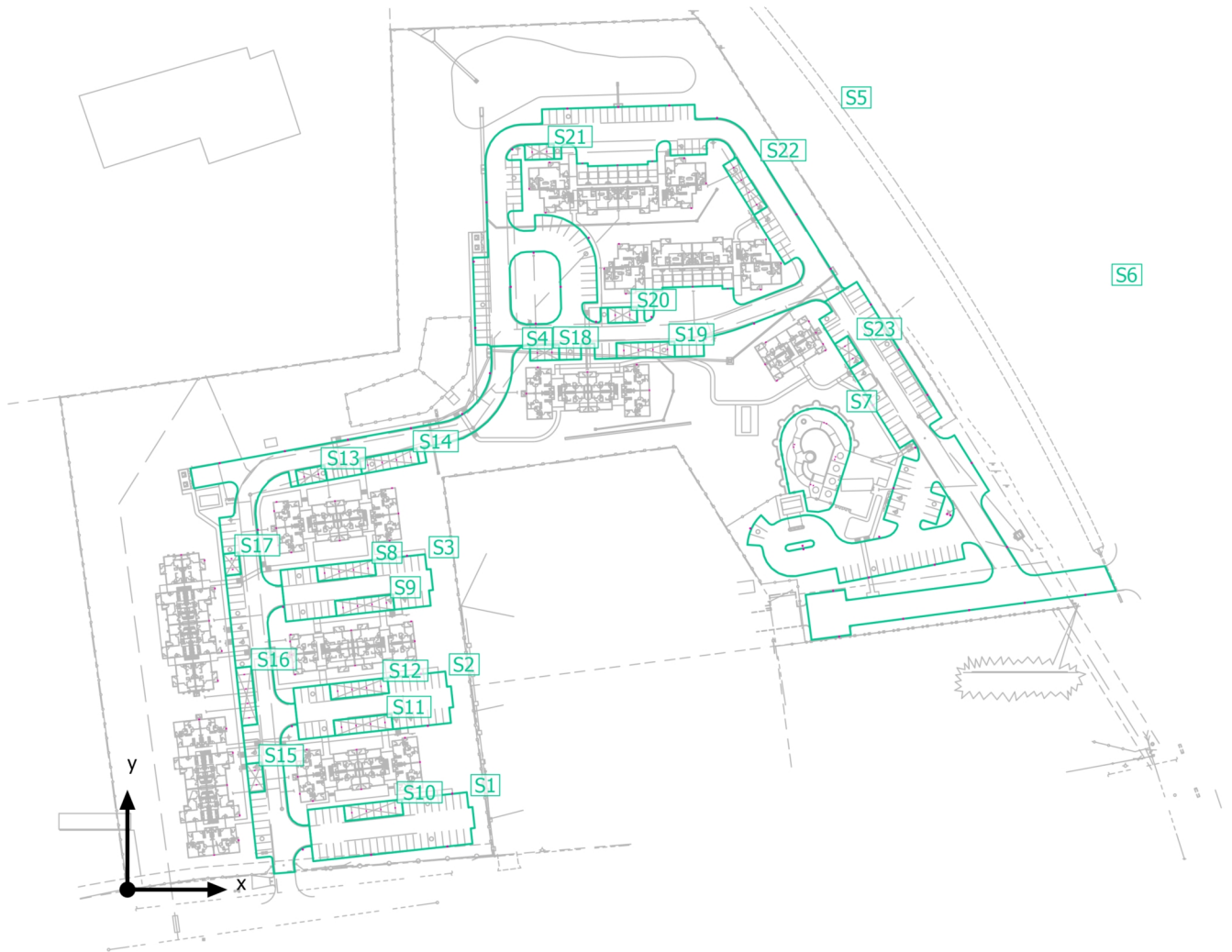
Luminaire list

Φ_{total} 1692110 lm	P_{total} 17572.7 W	Luminous efficacy 96.3 lm/W
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pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		APTO 30 AF72XWLA30-T3M1-V5 5000K-Wall Pack	30.6 W	3562 lm	116.4 lm/W
22	Access Fixtures		APTO 40 AF72XWLB40-T3M1-V5 5000K-Wall Pack	40.2 W	4482 lm	111.5 lm/W
47	Access Fixtures		APTO 80 AF72XWLB80-T3M1-V5 5000K-Wall Pack	78.7 W	8840 lm	112.3 lm/W
50	Access Fixtures		EPTA 30 AF72XBCA30-T5D1-V5 5000K	30.5 W	3419 lm	112.1 lm/W
192	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
8	Access Fixtures	ATSO AF33XAS3 01QF1X84 U3KL	AF33XAS301, ONE 84W LED ARRAY, TYPE V, FROST PRISMATIC LENS	87.4 W	7396 lm	84.6 lm/W
2	Access Fixtures	CARA 68 T3 AF33XKH2 5QC1X65 U5KC	CARA 68w WITH ONE 65W LED ARRAY, TYPE III OPTICS, CLEAR GLASS LENS	67.6 W	6380 lm	94.4 lm/W
56	Access Fixtures	CARA 84 T3 3K AF33XKH2 5QC1X81 U3KC	CARA 84w WITH ONE 81W LED ARRAY, TYPE III OPTICS, CLEAR GLASS LENS	84.2 W	9163 lm	108.8 lm/W
342	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Site 1

Calculation objects



Site 1

Calculation objects

Calculation surfaces

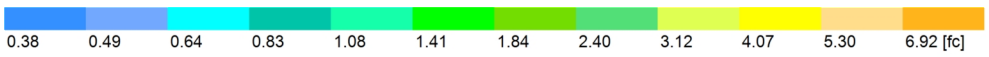
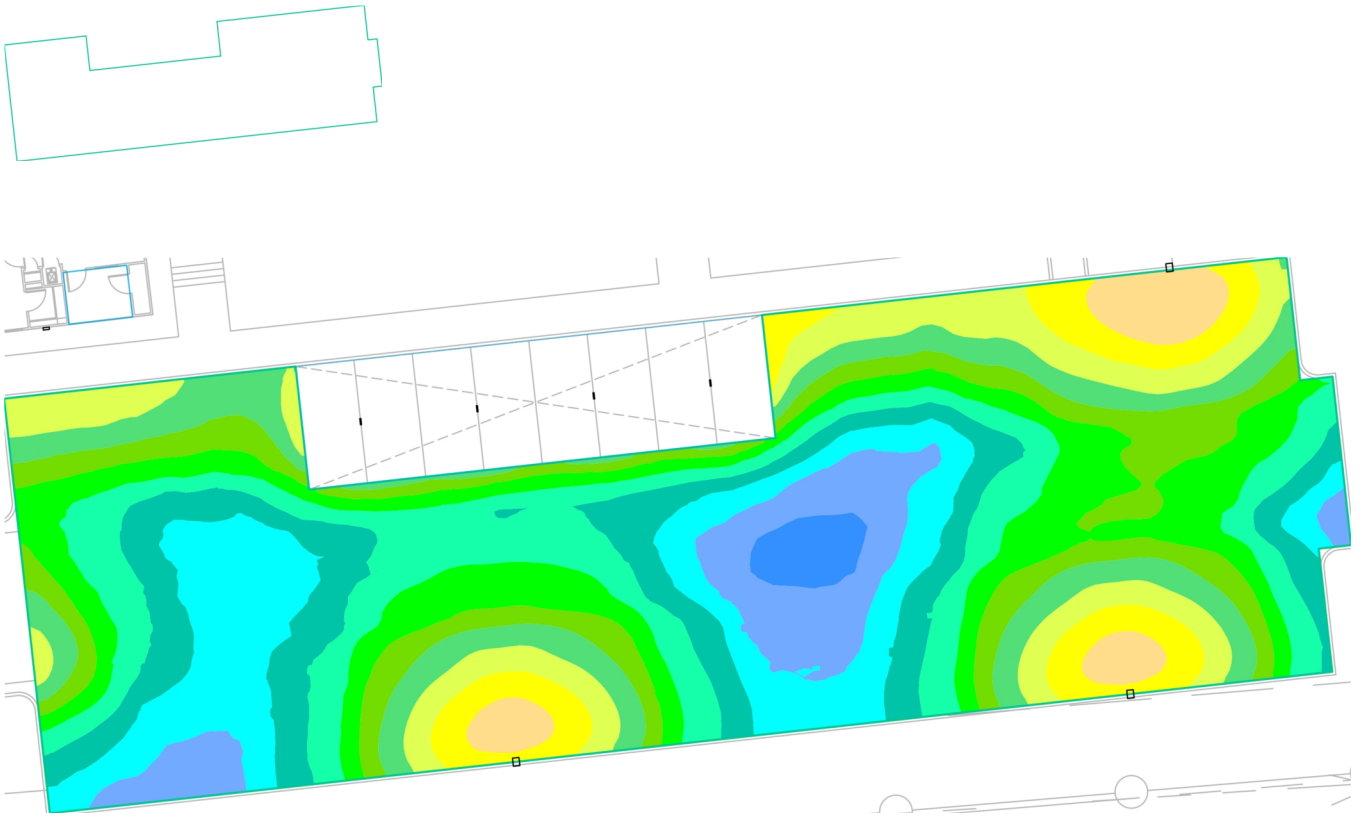
Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}	Index
B7 Parking Perpendicular illuminance (adaptive) Height: 0.000 ft	1.92 fc	0.42 fc	6.63 fc	4.55	15.7	S1
B6 Parking Perpendicular illuminance (adaptive) Height: 0.000 ft	1.98 fc	0.46 fc	6.67 fc	4.26	14.3	S2
B5 Parking Perpendicular illuminance (adaptive) Height: 0.000 ft	1.71 fc	0.37 fc	6.89 fc	4.62	18.6	S3
Road (lower part) Perpendicular illuminance (adaptive) Height: 0.000 ft	2.25 fc	0.39 fc	7.28 fc	5.84	18.9	S4
Road (upper part, B2, B3, B4) Perpendicular illuminance (adaptive) Height: 0.000 ft	2.65 fc	0.54 fc	11.9 fc	4.87	21.8	S5
Road (B1 & Clubhouse) Perpendicular illuminance (adaptive) Height: 0.000 ft	2.27 fc	0.41 fc	8.22 fc	5.55	20.1	S6
Pool / Grill Area Perpendicular illuminance (adaptive) Height: 0.000 ft	4.79 fc	0.66 fc	11.6 fc	7.25	17.5	S7
B5 Parking Carport 1 Perpendicular illuminance (adaptive) Height: 0.000 ft	6.91 fc	1.96 fc	15.4 fc	3.53	7.89	S8
B5 Parking Carport 2 Perpendicular illuminance (adaptive) Height: 0.000 ft	6.94 fc	1.95 fc	15.6 fc	3.55	8.00	S9
B7 Parking Carport Perpendicular illuminance (adaptive) Height: 0.000 ft	7.29 fc	2.08 fc	15.9 fc	3.51	7.65	S10
B6 Parking Carport 2 Perpendicular illuminance (adaptive) Height: 0.000 ft	7.29 fc	2.38 fc	15.9 fc	3.07	6.68	S11

Site 1

Calculation objects

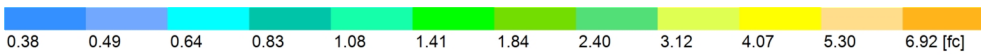
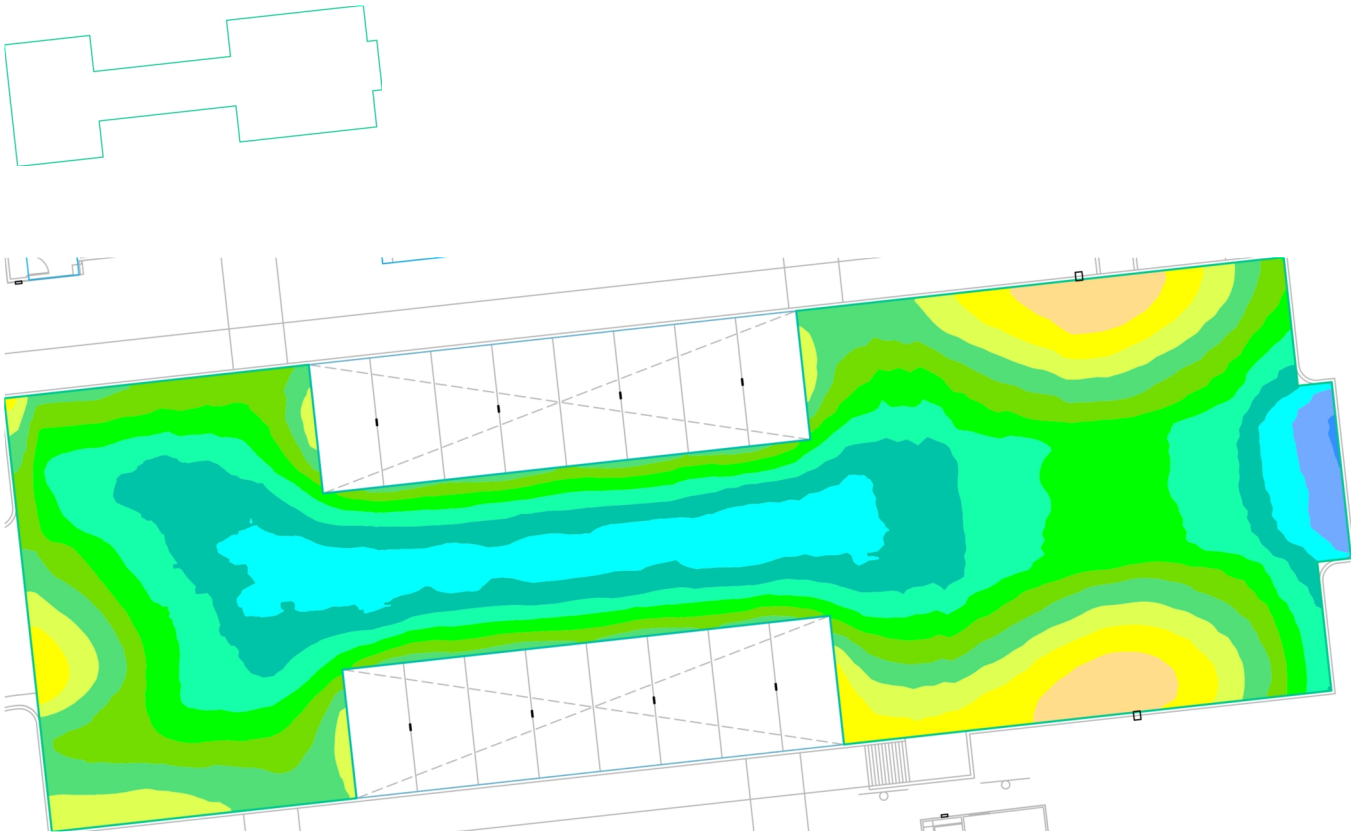
Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}	Index
B6 Parking Carport 1 Perpendicular illuminance (adaptive) Height: 0.000 ft	6.99 fc	2.13 fc	15.3 fc	3.28	7.19	S12
Road Carport 1 Perpendicular illuminance (adaptive) Height: 0.000 ft	6.79 fc	2.07 fc	15.4 fc	3.28	7.44	S13
Road Carport 2 Perpendicular illuminance (adaptive) Height: 0.000 ft	7.13 fc	2.27 fc	15.5 fc	3.15	6.86	S14
B9 Parking Carport 1 Perpendicular illuminance (adaptive) Height: 0.000 ft	7.34 fc	2.09 fc	15.9 fc	3.51	7.60	S15
B9 Parking Carport 2 Perpendicular illuminance (adaptive) Height: 0.000 ft	7.78 fc	2.18 fc	16.3 fc	3.56	7.45	S16
B8 Parking Carport Perpendicular illuminance (adaptive) Height: 0.000 ft	8.54 fc	2.76 fc	16.2 fc	3.10	5.86	S17
B2 Parking Carport 1 Perpendicular illuminance (adaptive) Height: 0.000 ft	7.72 fc	2.51 fc	15.3 fc	3.08	6.08	S18
B2 Parking Carport 2 Perpendicular illuminance (adaptive) Height: 0.000 ft	7.75 fc	2.36 fc	15.7 fc	3.29	6.64	S19
B3 Parking Carport Perpendicular illuminance (adaptive) Height: 0.000 ft	7.48 fc	2.87 fc	16.1 fc	2.61	5.59	S20
B4 Parking Carport 1 Perpendicular illuminance (adaptive) Height: 0.000 ft	6.61 fc	1.74 fc	14.7 fc	3.80	8.43	S21
B4 Parking Carport 2 Perpendicular illuminance (adaptive) Height: 0.000 ft	6.99 fc	2.03 fc	15.5 fc	3.45	7.63	S22
B1 Parking Carport Perpendicular illuminance (adaptive) Height: 0.000 ft	8.11 fc	1.68 fc	17.8 fc	4.82	10.6	S23

Site 1
B7 Parking



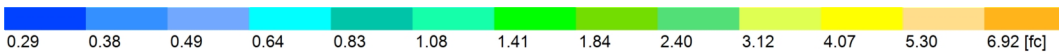
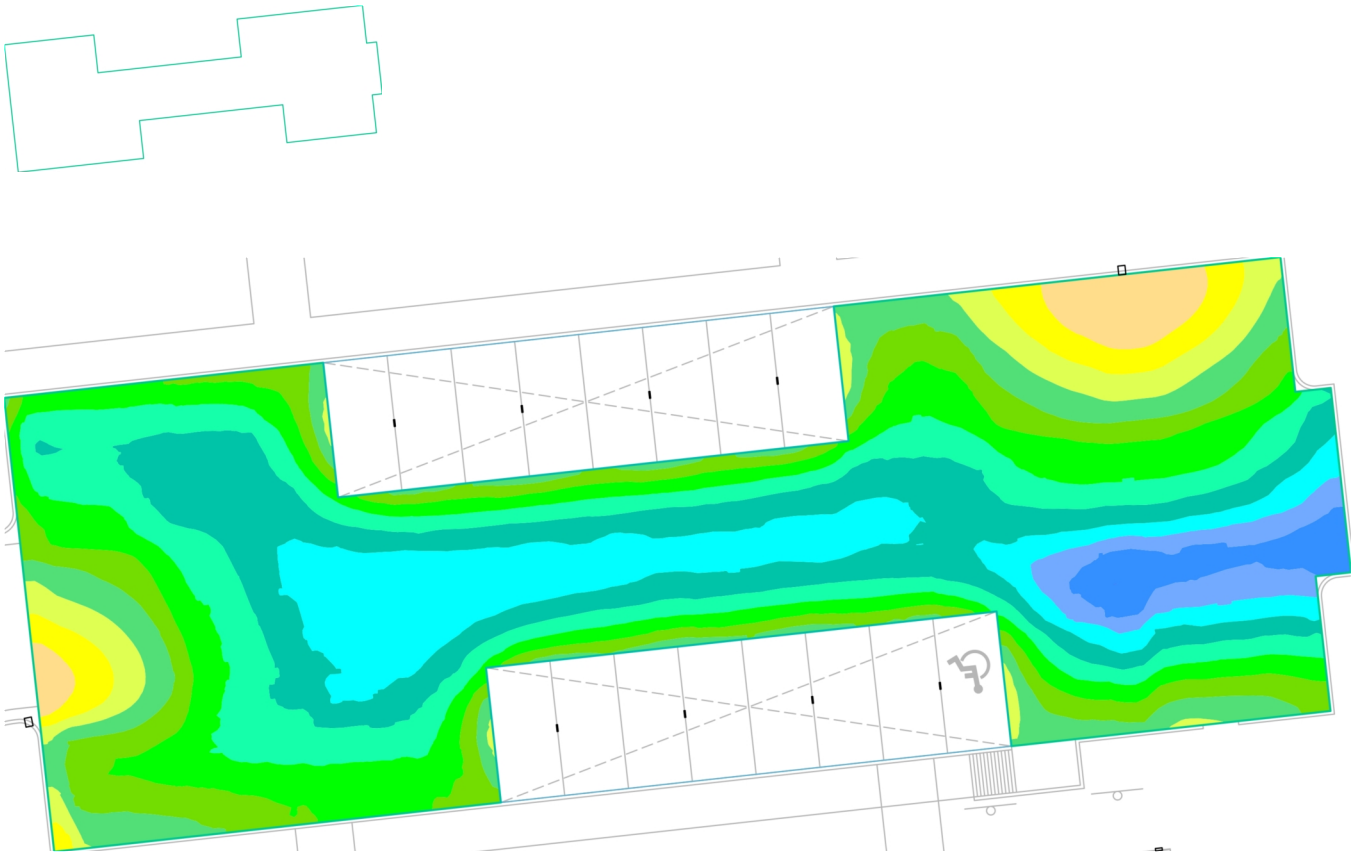
Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
B7 Parking Perpendicular illuminance (adaptive) Height: 0.000 ft	1.92 fc	0.42 fc	6.63 fc	4.55	15.7

Site 1
B6 Parking



Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
B6 Parking Perpendicular illuminance (adaptive) Height: 0.000 ft	1.98 fc	0.46 fc	6.67 fc	4.26	14.3

Site 1
B5 Parking



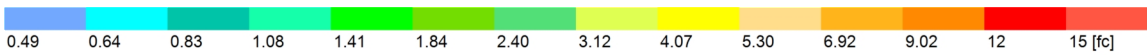
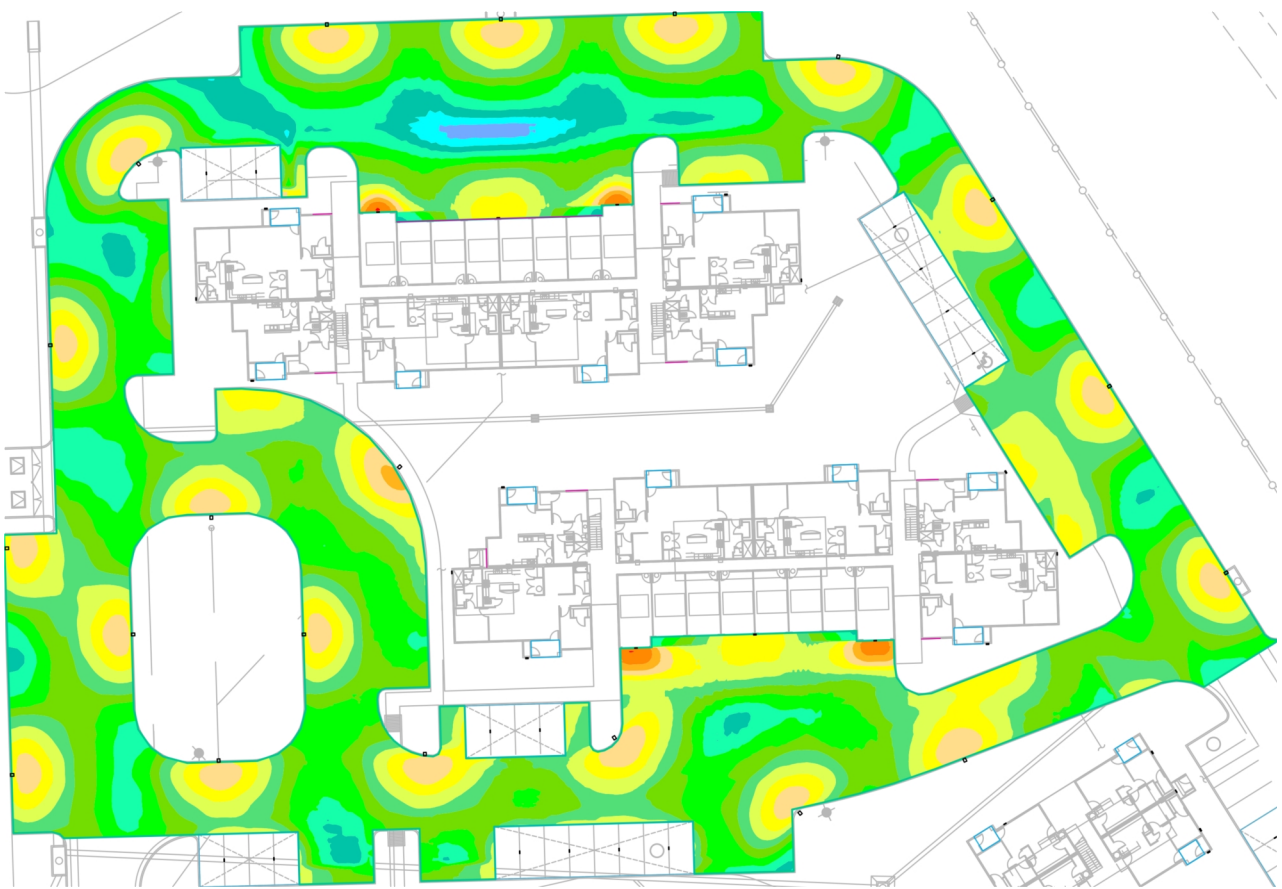
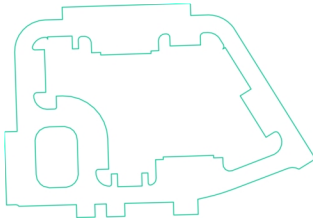
Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
B5 Parking Perpendicular illuminance (adaptive) Height: 0.000 ft	1.71 fc	0.37 fc	6.89 fc	4.62	18.6

Site 1
Road (lower part)



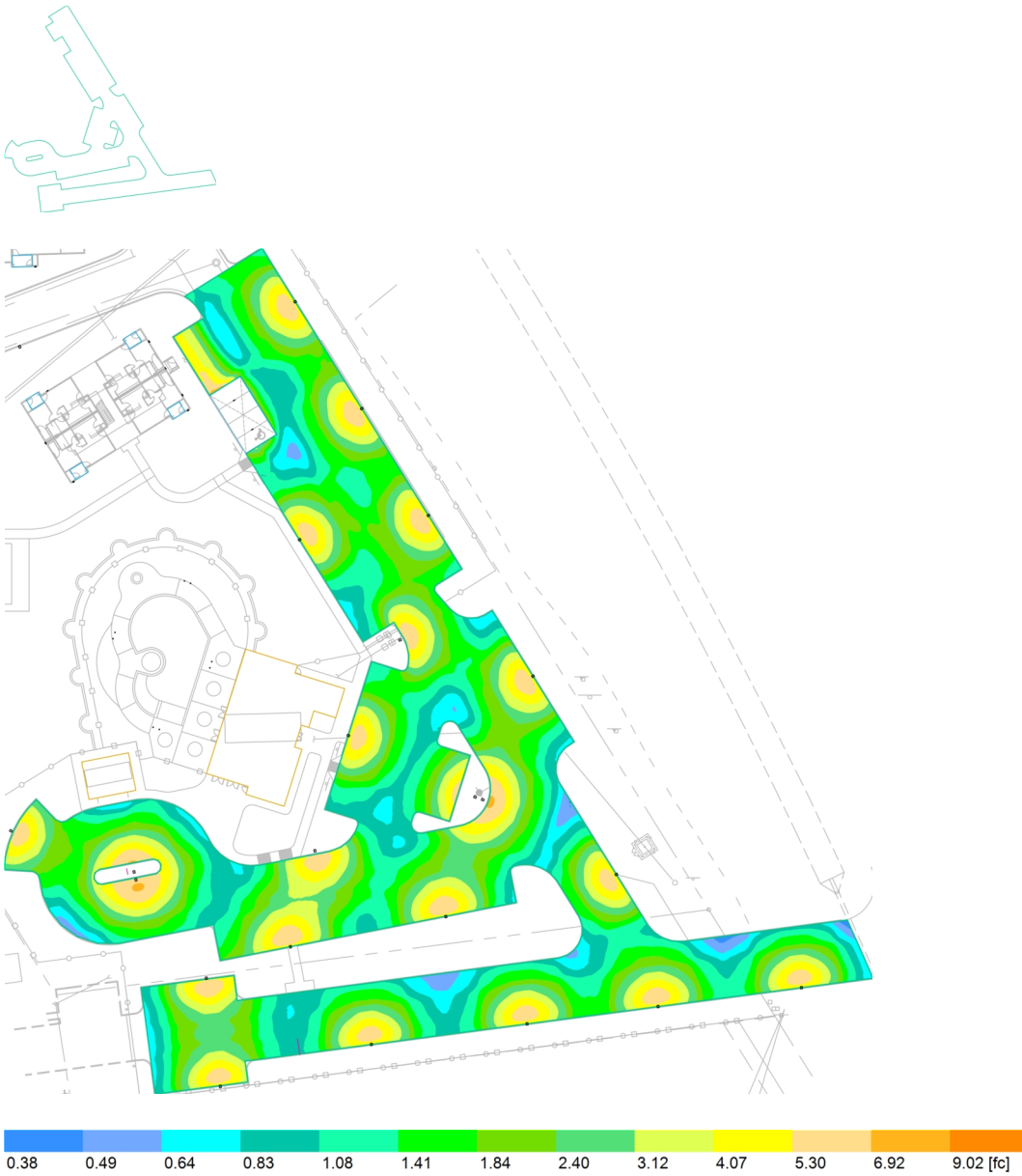
Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
Road (lower part) Perpendicular illuminance (adaptive) Height: 0.000 ft	2.25 fc	0.39 fc	7.28 fc	5.84	18.9

Site 1
Road (upper part, B2, B3, B4)



Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
Road (upper part, B2, B3, B4) Perpendicular illuminance (adaptive) Height: 0.000 ft	2.65 fc	0.54 fc	11.9 fc	4.87	21.8

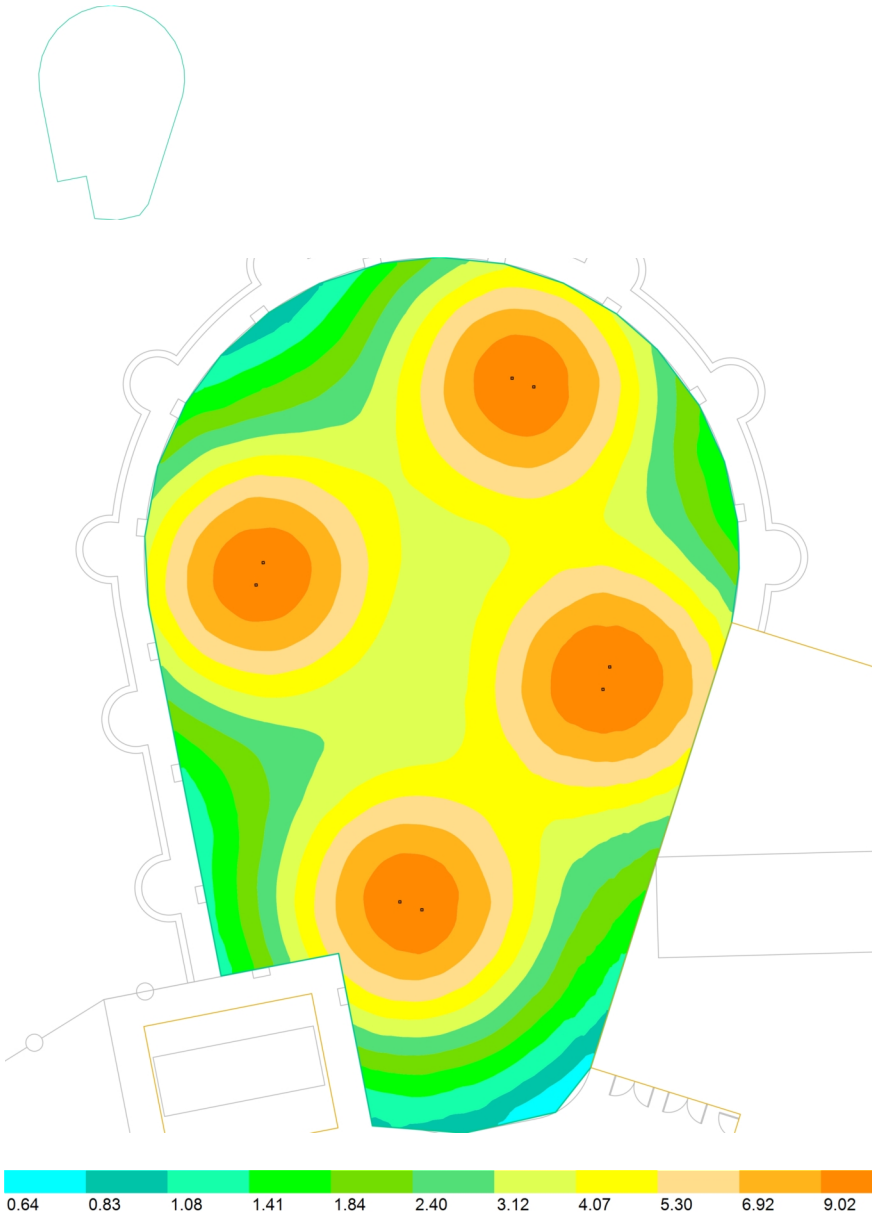
Site 1
Road (B1 & Clubhouse)



Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
Road (B1 & Clubhouse) Perpendicular illuminance (adaptive) Height: 0.000 ft	2.27 fc	0.41 fc	8.22 fc	5.55	20.1

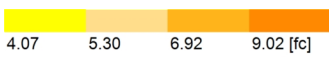
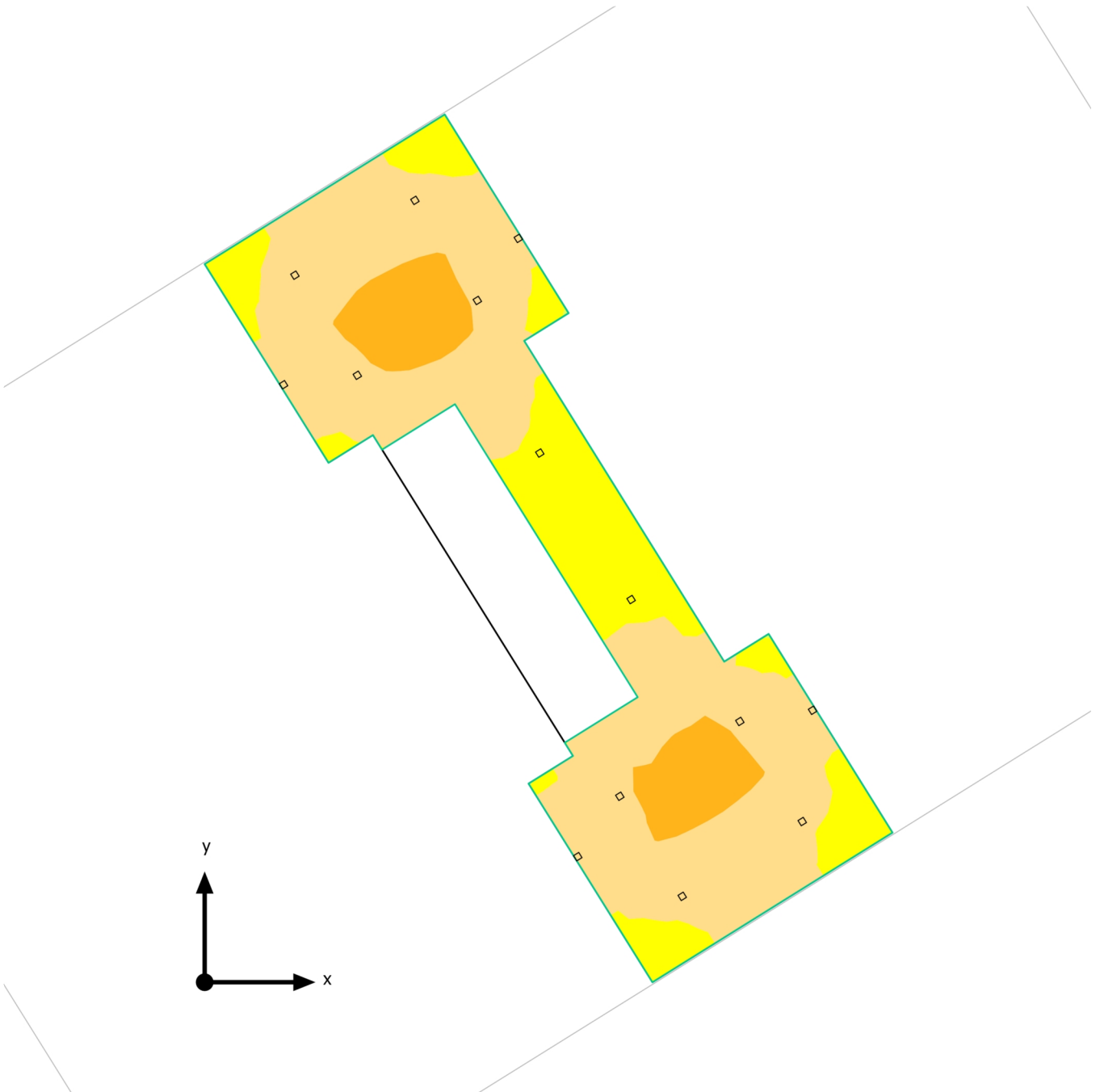
Site 1

Pool / Grill Area



Properties	\bar{E}	E_{min}	E_{max}	\bar{E}/E_{min}	E_{max}/E_{min}
Pool / Grill Area Perpendicular illuminance (adaptive) Height: 0.000 ft	4.79 fc	0.66 fc	11.6 fc	7.25	17.5

Building 1 · Storey 1 · Staircase
Summary



Ground area: 568.17 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 1 · Storey 1 · Staircase

Summary

Results

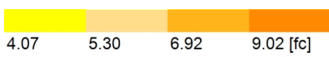
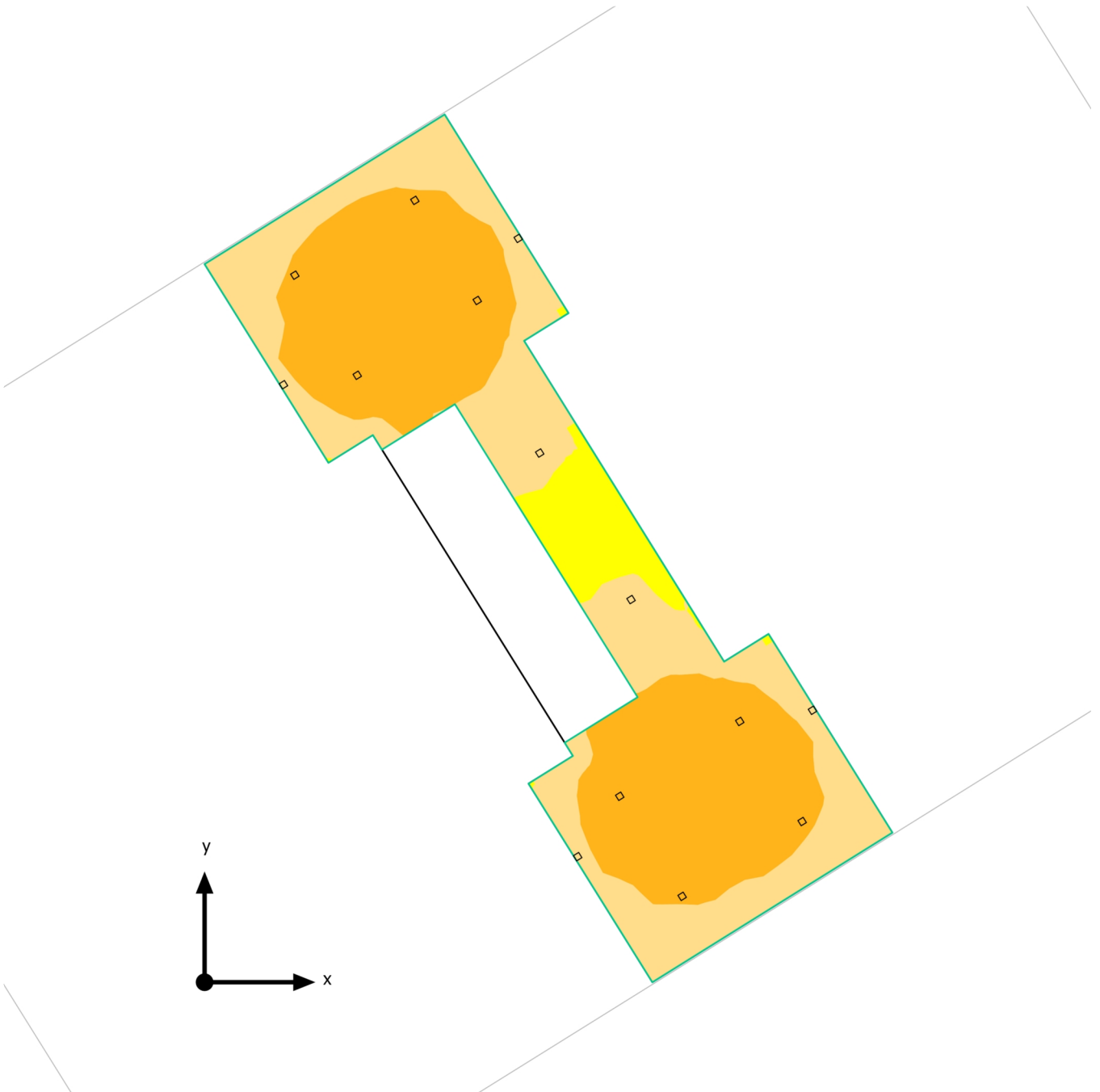
	Symbol	Calculated
Workplane	\bar{E}	5.90 fc
	\bar{E}/E_{\min}	1.35
Consumption values	Consumption	410 kWh/a
Lighting power density	Room	0.26 W/sq ft
	Workplane	0.31 W/sq ft
		0.53 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
10	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 1 · Storey 3 · Staircase

Summary



Ground area: 568.17 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 1 · Storey 3 · Staircase

Summary

Results

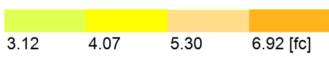
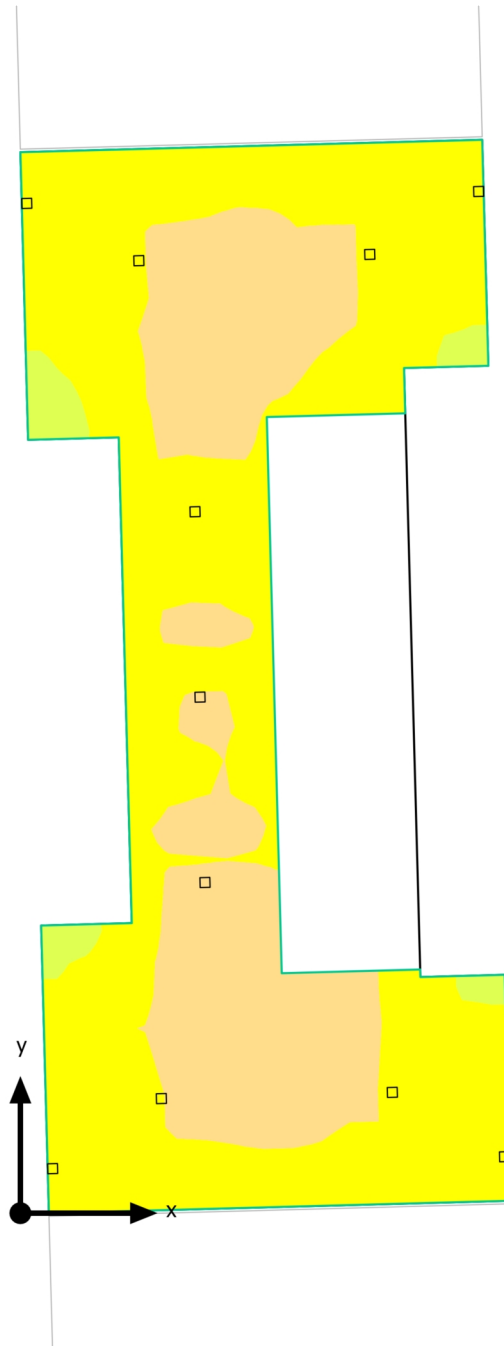
	Symbol	Calculated
Workplane	\bar{E}	6.88 fc
	\bar{E}/E_{\min}	1.50
Consumption values	Consumption	410 kWh/a
Lighting power density	Room	0.26 W/sq ft
	Workplane	0.31 W/sq ft
		0.45 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
10	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 2 · Storey 1 · Staircase 1

Summary



Ground area: 432.69 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 2 · Storey 1 · Staircase 1

Summary

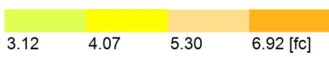
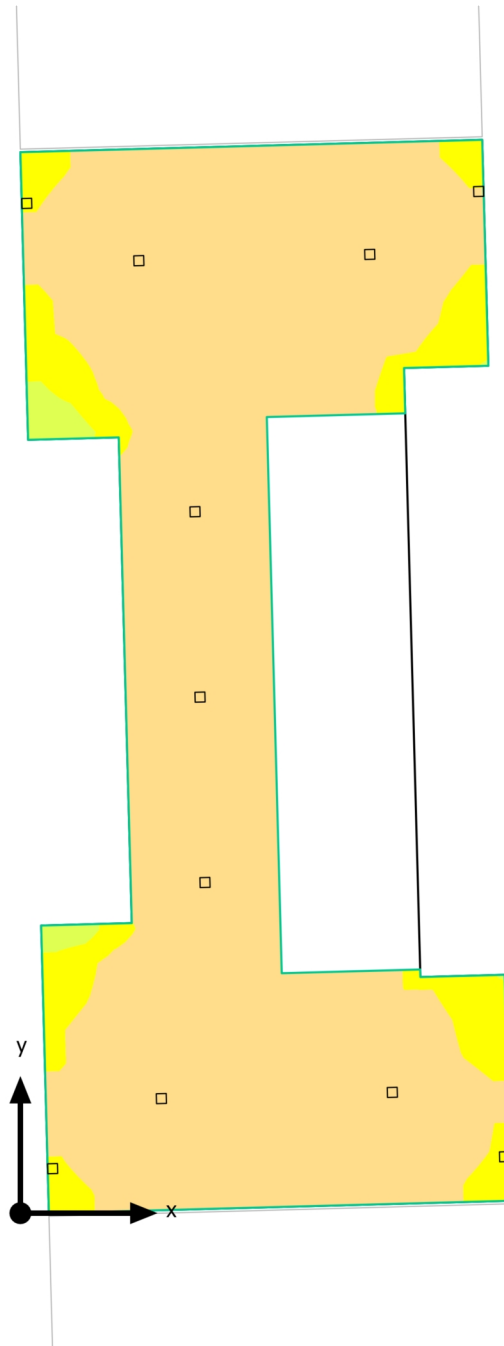
Results

	Symbol	Calculated
Workplane	\bar{E}	5.04 fc
	\bar{E}/E_{min}	1.54
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.28 W/sq ft
	Workplane	0.34 W/sq ft
		0.68 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 2 · Storey 3 · Staircase 1
Summary



Ground area: 432.69 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 2 · Storey 3 · Staircase 1

Summary

Results

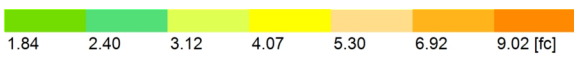
	Symbol	Calculated
Workplane	\bar{E}	5.90 fc
	\bar{E}/E_{\min}	1.75
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.28 W/sq ft
	Workplane	0.34 W/sq ft
		0.58 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 3 · Storey 1 · Staircase 1

Summary



Ground area: 393.15 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 3 · Storey 1 · Staircase 1

Summary

Results

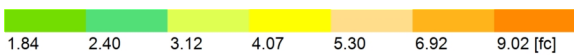
	Symbol	Calculated
Workplane	\bar{E}	5.43 fc
	\bar{E}/E_{\min}	2.94
Consumption values	Consumption	270 kWh/a
Lighting power density	Room	0.25 W/sq ft
	Workplane	0.31 W/sq ft
		0.58 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 3 · Storey 3 · Staircase 1

Summary



Ground area: 393.15 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 3 · Storey 3 · Staircase 1

Summary

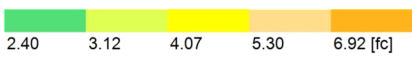
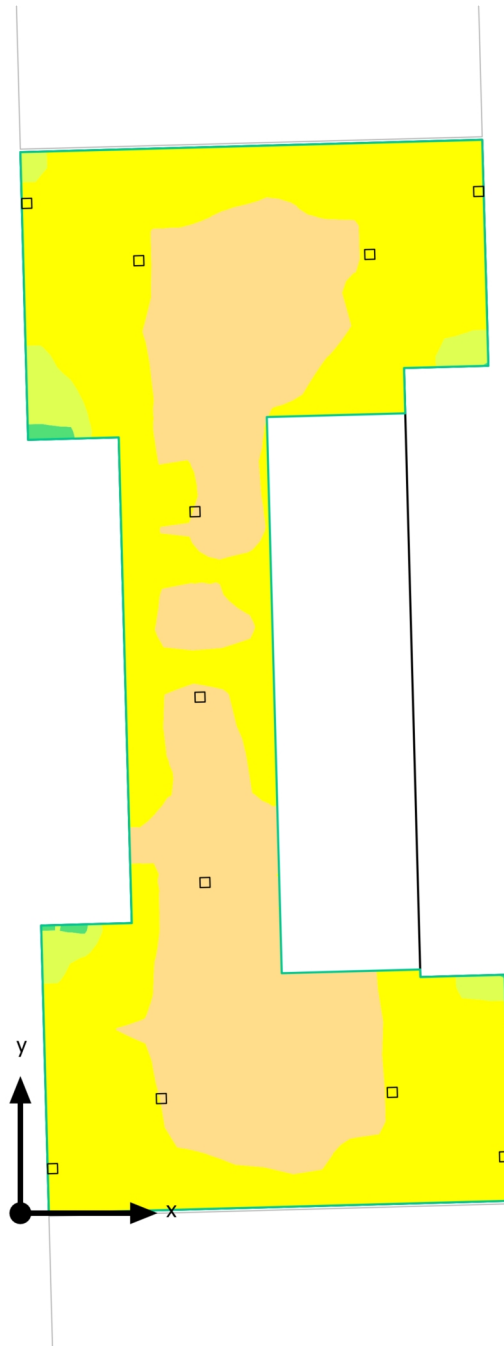
Results

	Symbol	Calculated
Workplane	\bar{E}	6.34 fc
	\bar{E}/E_{\min}	3.05
Consumption values	Consumption	270 kWh/a
Lighting power density	Room	0.25 W/sq ft
	Workplane	0.31 W/sq ft
		0.50 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 5 · Storey 1 · Staircase 1
Summary



Ground area: 432.69 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 5 · Storey 1 · Staircase 1

Summary

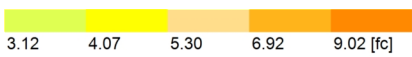
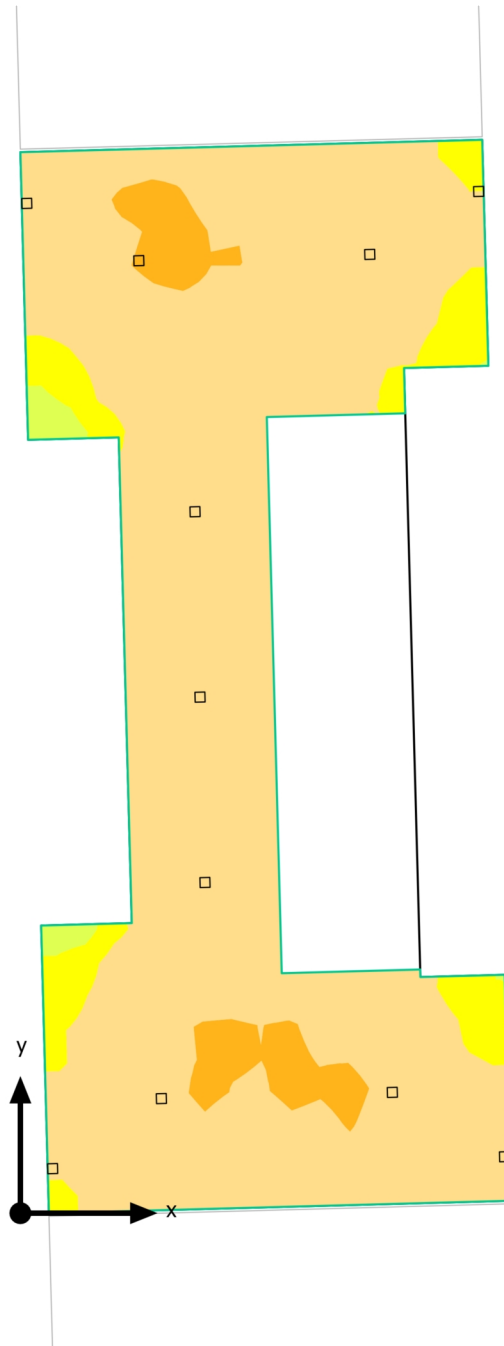
Results

	Symbol	Calculated
Workplane	\bar{E}	5.07 fc
	\bar{E}/E_{\min}	1.63
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.28 W/sq ft
	Workplane	0.34 W/sq ft
		0.68 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 5 · Storey 3 · Staircase 1
Summary



Ground area: 432.69 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 5 · Storey 3 · Staircase 1

Summary

Results

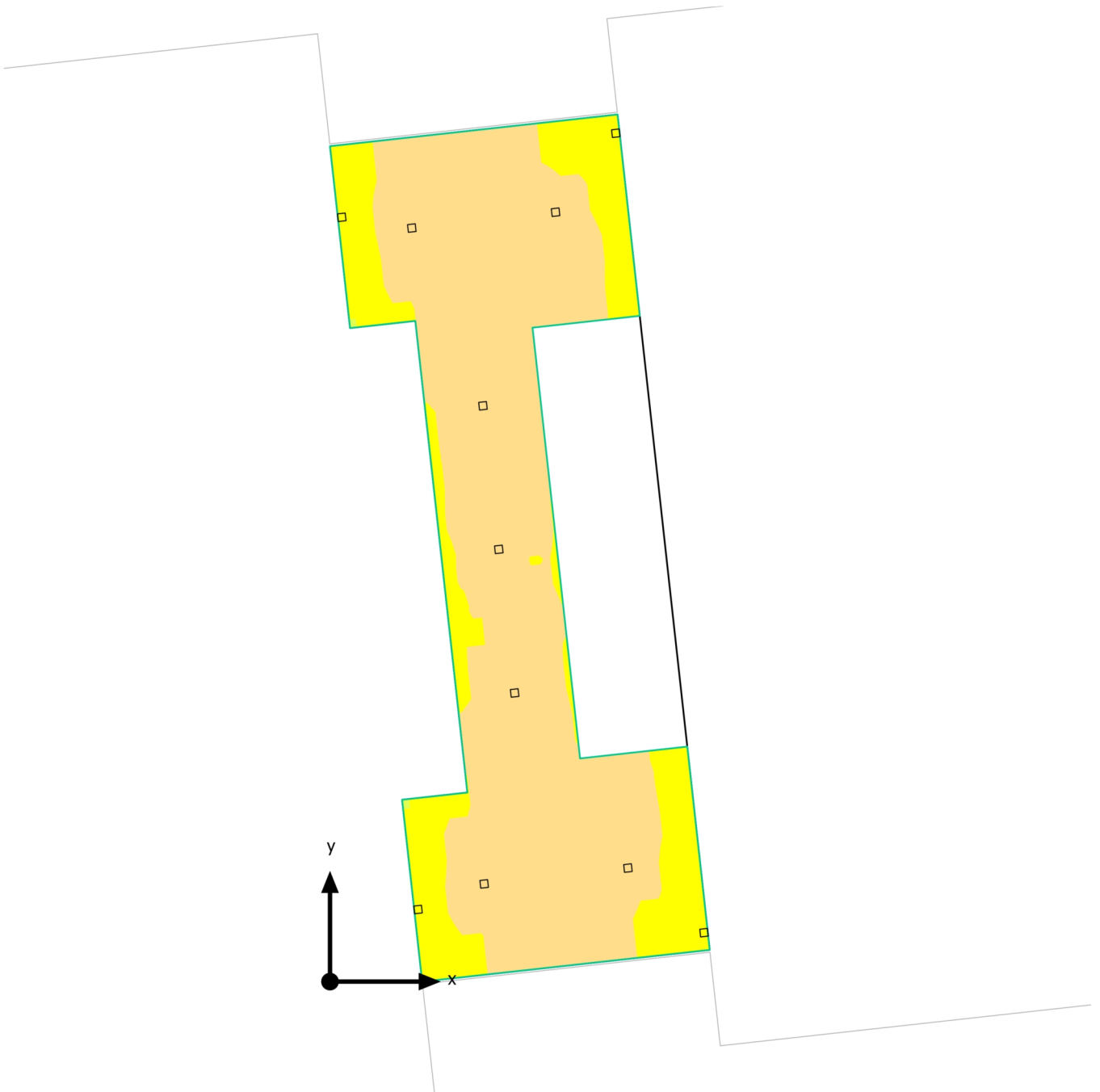
	Symbol	Calculated
Workplane	\bar{E}	6.08 fc
	\bar{E}/E_{\min}	1.68
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.28 W/sq ft
	Workplane	0.34 W/sq ft
		0.56 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 6 · Storey 1 · Staircase 1

Summary



Ground area: 382.71 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 6 · Storey 1 · Staircase 1

Summary

Results

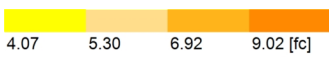
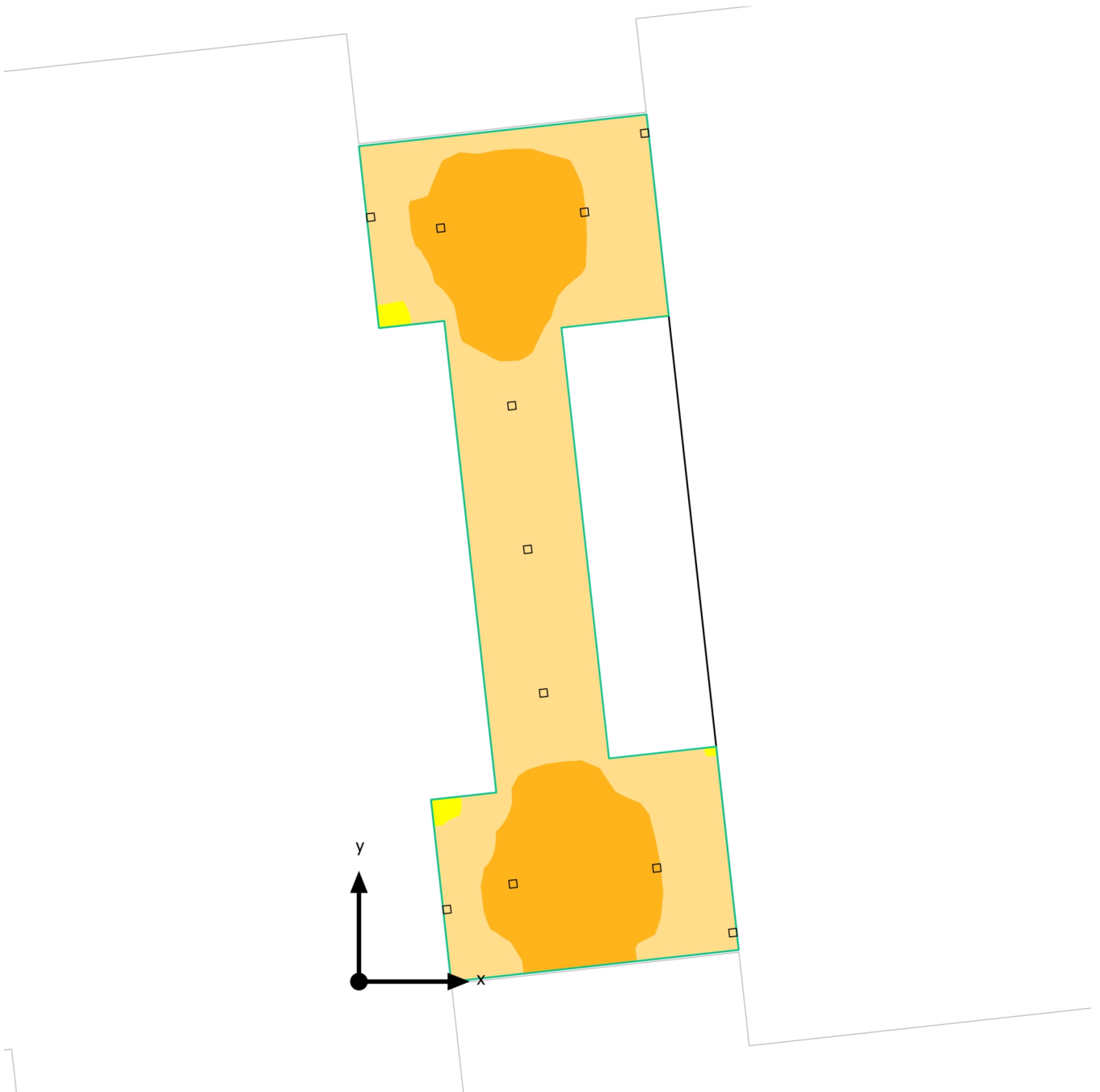
	Symbol	Calculated
Workplane	\bar{E}	5.59 fc
	\bar{E}/E_{\min}	1.29
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.31 W/sq ft
	Workplane	0.40 W/sq ft
		0.72 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 6 · Storey 3 · Staircase 1

Summary



Ground area: 382.71 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 6 · Storey 3 · Staircase 1

Summary

Results

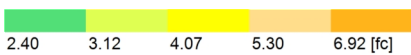
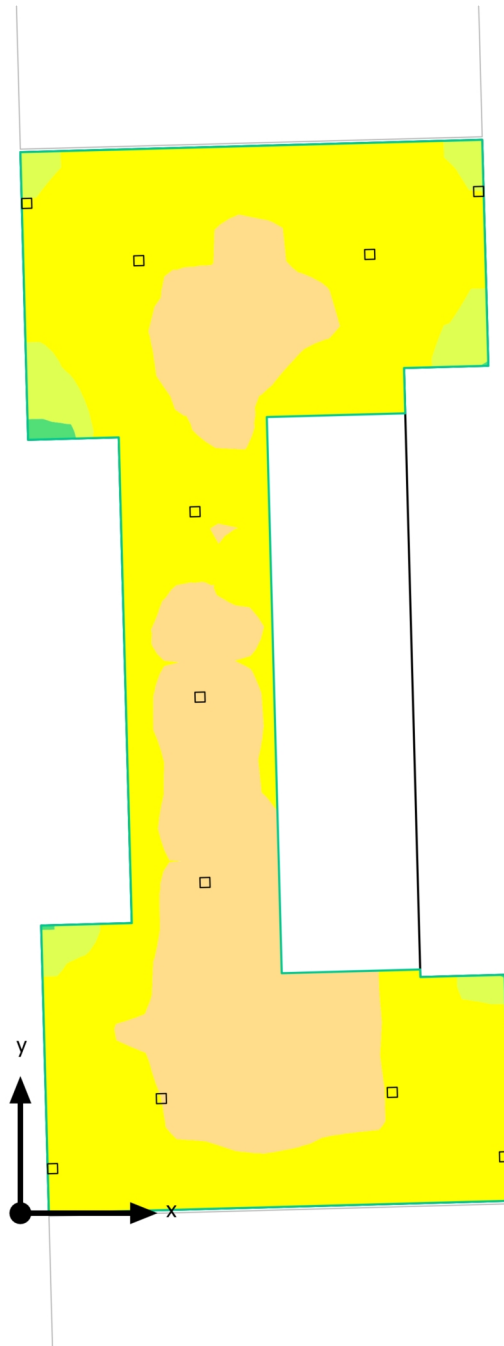
	Symbol	Calculated
Workplane	\bar{E}	6.61 fc
	\bar{E}/E_{\min}	1.30
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.31 W/sq ft
	Workplane	0.40 W/sq ft
		0.61 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 7 · Storey 1 · Staircase 1

Summary



Ground area: 432.69 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 7 · Storey 1 · Staircase 1

Summary

Results

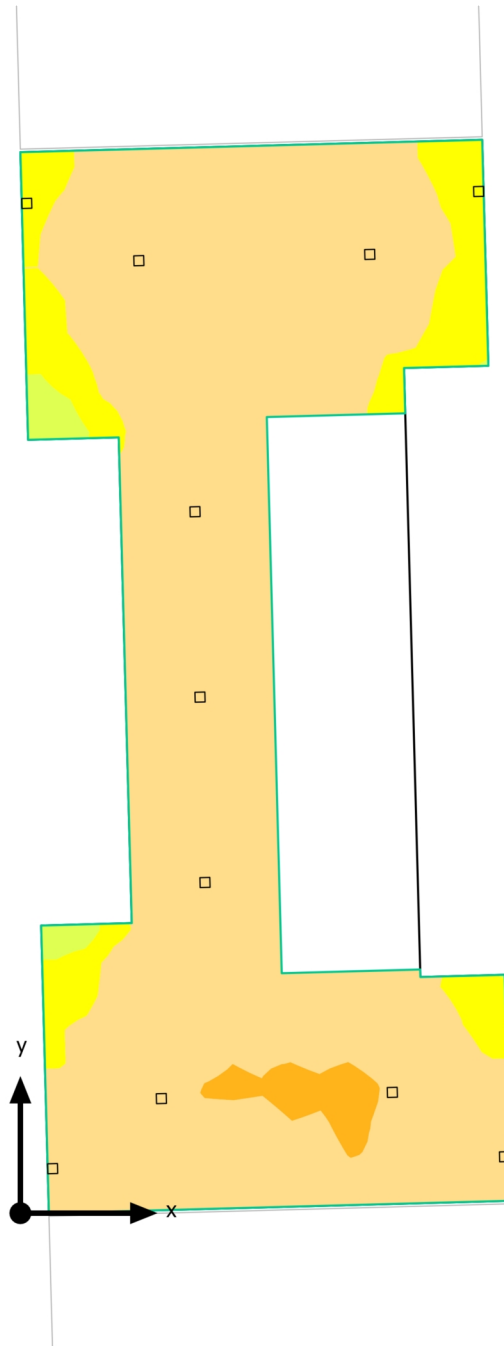
	Symbol	Calculated
Workplane	\bar{E}	5.02 fc
	\bar{E}/E_{\min}	1.65
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.28 W/sq ft
	Workplane	0.34 W/sq ft
		0.68 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 7 · Storey 3 · Staircase 1

Summary



Ground area: 432.69 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 7 · Storey 3 · Staircase 1

Summary

Results

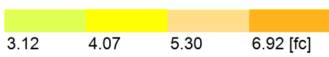
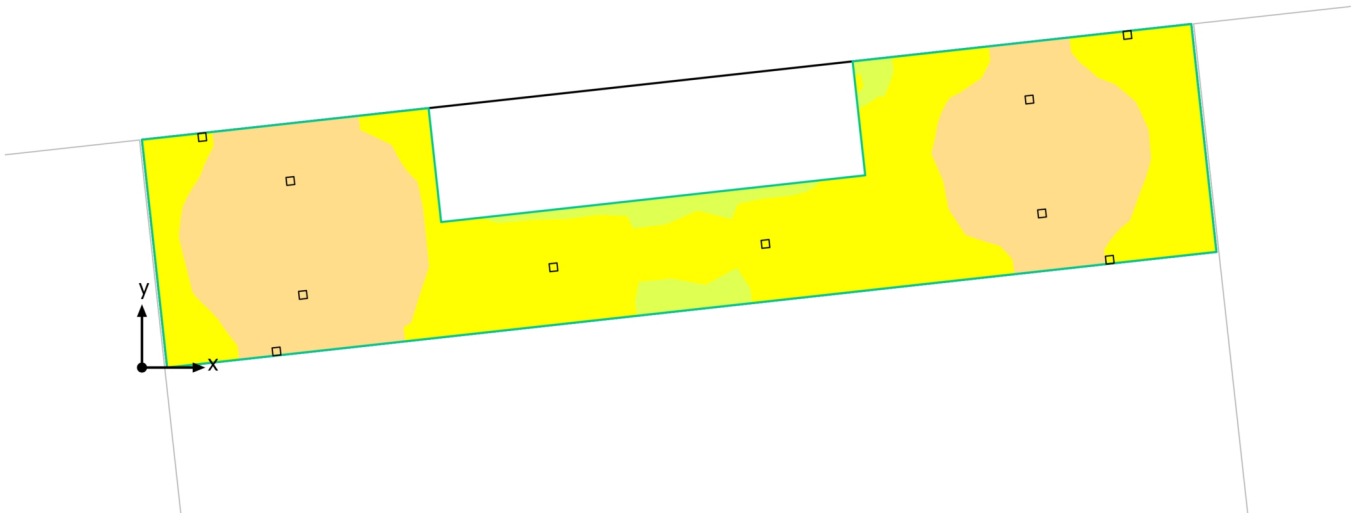
	Symbol	Calculated
Workplane	\bar{E}	5.99 fc
	\bar{E}/E_{\min}	1.76
Consumption values	Consumption	330 kWh/a
Lighting power density	Room	0.28 W/sq ft
	Workplane	0.34 W/sq ft
		0.57 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
7	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 8 · Storey 1 · Staircase 1

Summary



Ground area: 415.31 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 8 · Storey 1 · Staircase 1

Summary

Results

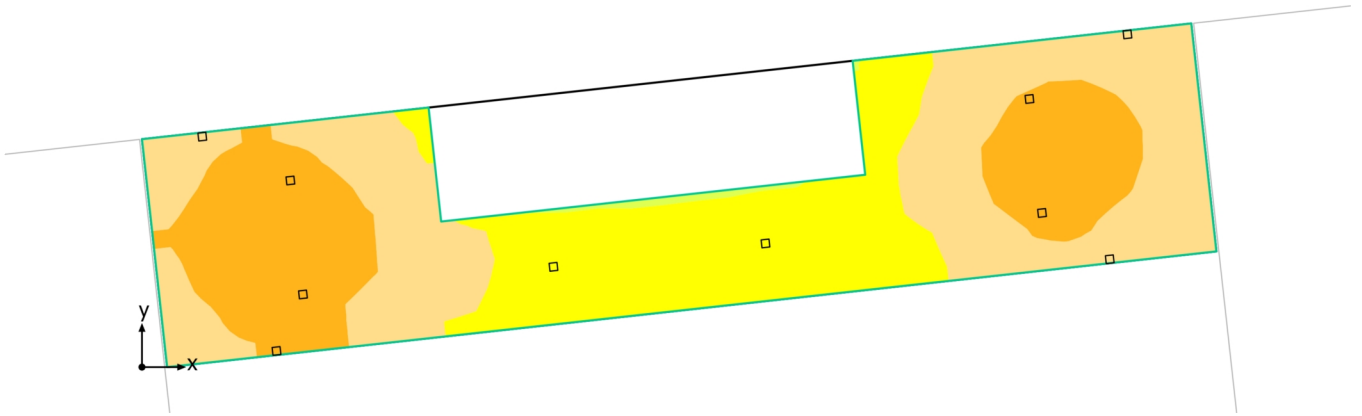
	Symbol	Calculated
Workplane	\bar{E}	5.11 fc
	\bar{E}/E_{min}	1.52
Consumption values	Consumption	300 kWh/a
Lighting power density	Room	0.26 W/sq ft
	Workplane	0.33 W/sq ft
		0.65 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 8 · Storey 3 · Staircase 1

Summary



Ground area: 415.31 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 8 · Storey 3 · Staircase 1

Summary

Results

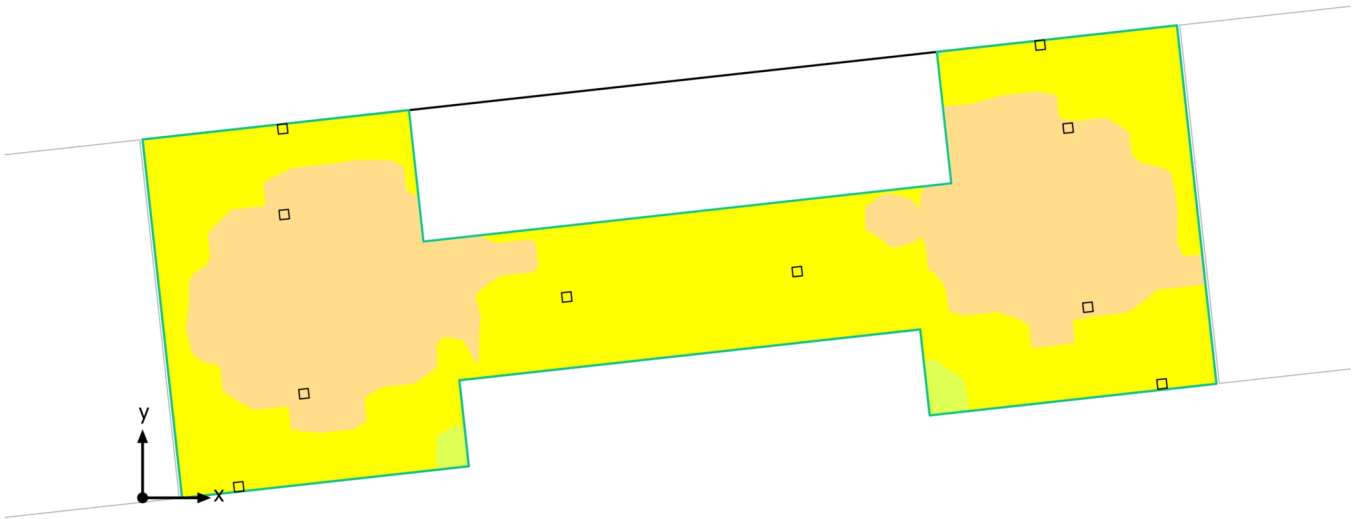
	Symbol	Calculated
Workplane	\bar{E}	6.10 fc
	\bar{E}/E_{min}	1.64
Consumption values	Consumption	300 kWh/a
Lighting power density	Room	0.26 W/sq ft
	Workplane	0.33 W/sq ft
		0.54 W/sq ft/10 fc

Luminaire list

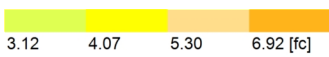
pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 9 · Storey 1 · Staircase 1

Summary



7



Ground area: 402.84 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 9 · Storey 1 · Staircase 1

Summary

Results

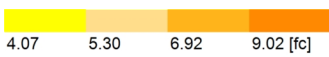
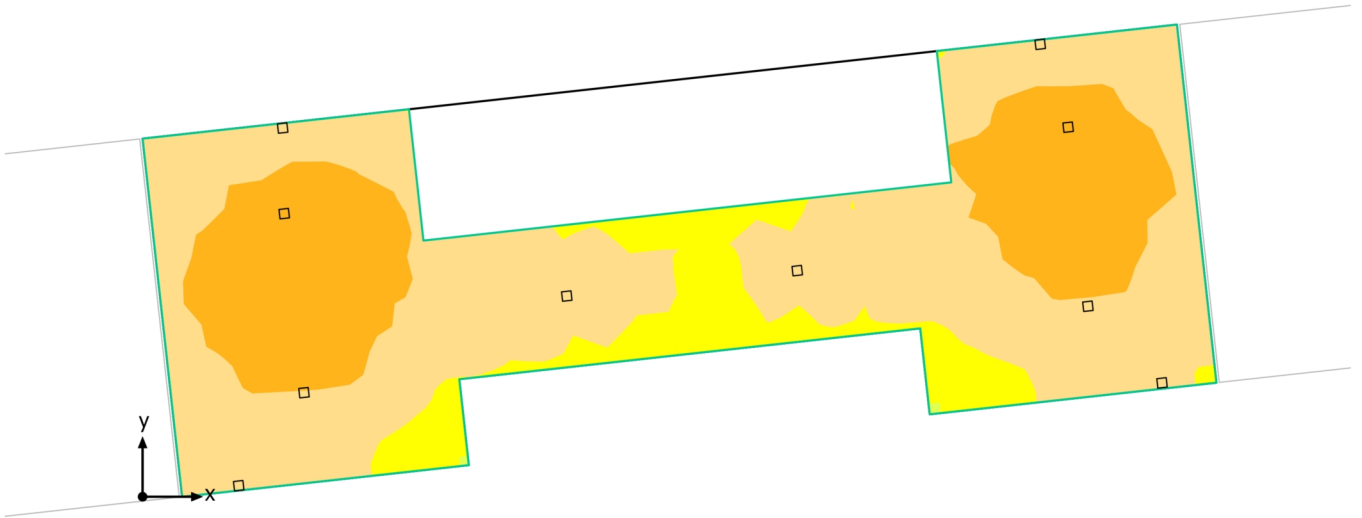
	Symbol	Calculated
Workplane	\bar{E}	5.21 fc
	\bar{E}/E_{min}	1.39
Consumption values	Consumption	300 kWh/a
Lighting power density	Room	0.27 W/sq ft
	Workplane	0.34 W/sq ft
		0.66 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 9 · Storey 3 · Staircase 1

Summary



Ground area: 402.84 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 9 · Storey 3 · Staircase 1

Summary

Results

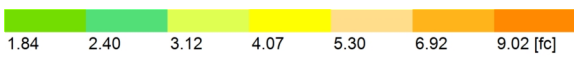
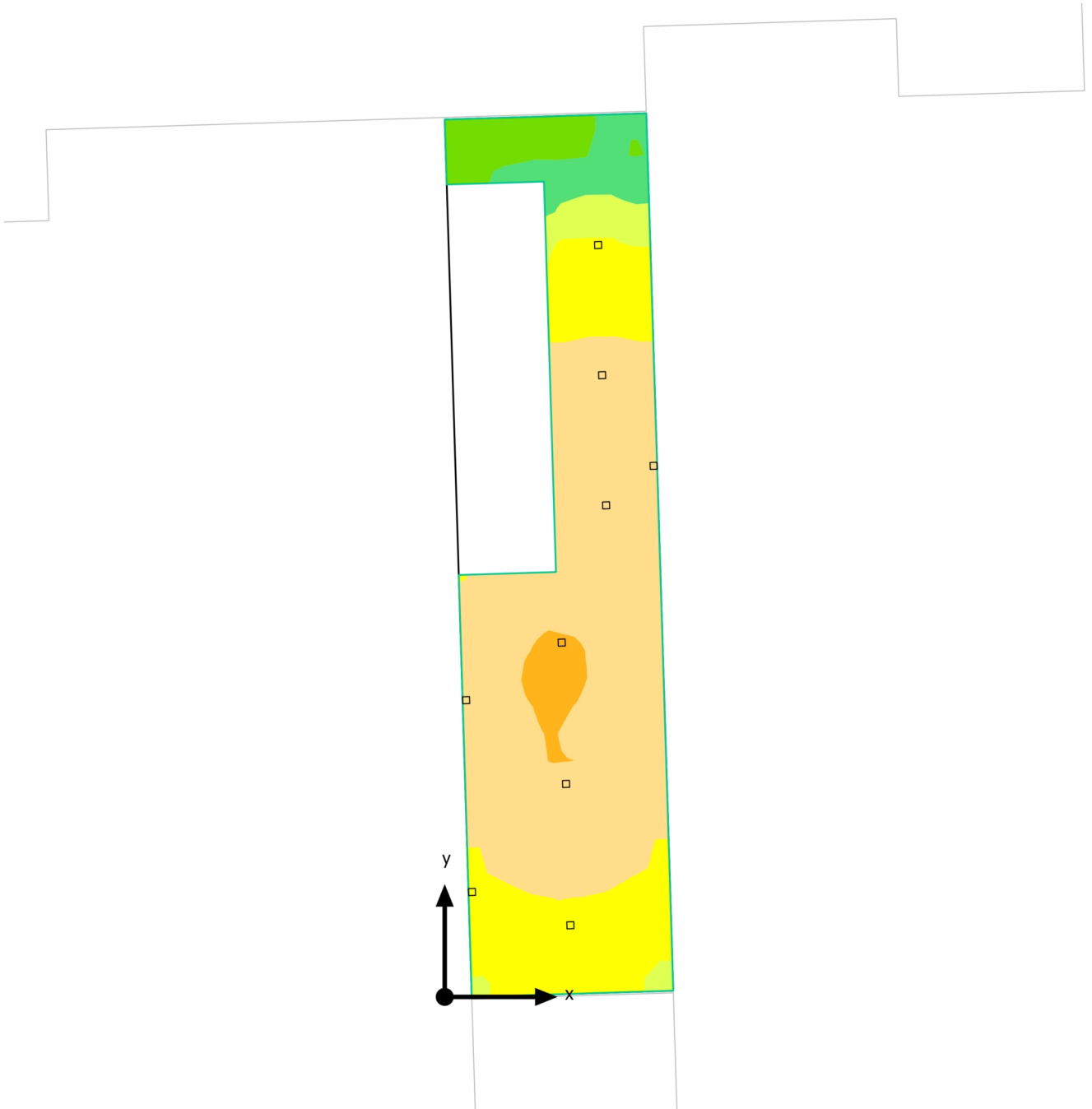
	Symbol	Calculated
Workplane	\bar{E}	6.31 fc
	\bar{E}/E_{min}	1.51
Consumption values	Consumption	300 kWh/a
Lighting power density	Room	0.27 W/sq ft
	Workplane	0.34 W/sq ft
		0.54 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
4	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 4 · Storey 1 · Staircase 1

Summary



Ground area: 393.15 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 10.563 ft | Mounting height: 5.282 ft - 10.563 ft

Building 4 · Storey 1 · Staircase 1

Summary

Results

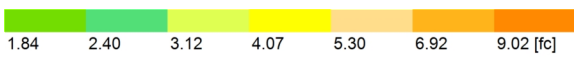
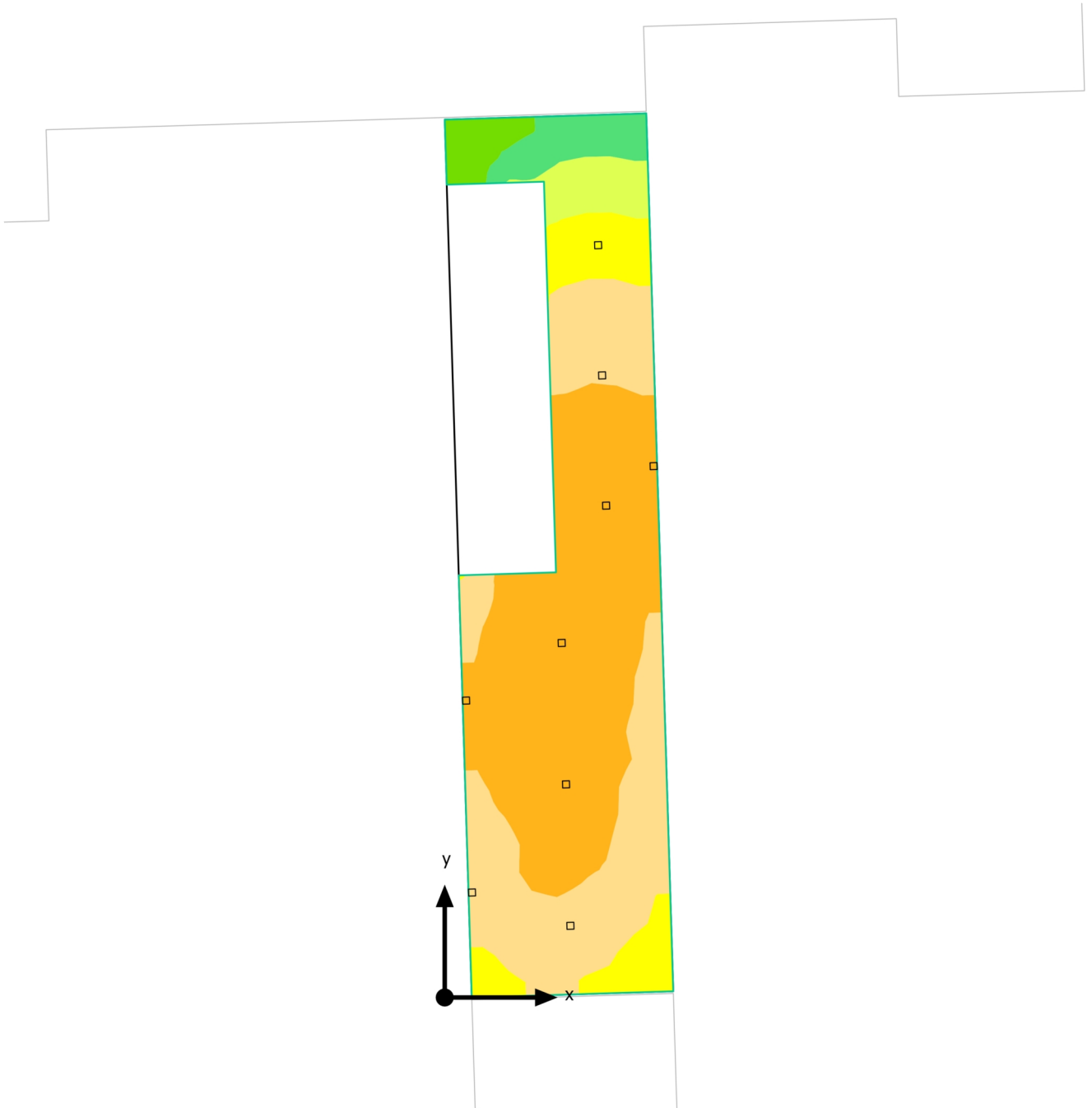
	Symbol	Calculated
Workplane	\bar{E}	5.40 fc
	\bar{E}/E_{\min}	2.77
Consumption values	Consumption	270 kWh/a
Lighting power density	Room	0.25 W/sq ft
	Workplane	0.31 W/sq ft
		0.58 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Building 4 · Storey 3 · Staircase 1

Summary



Ground area: 393.15 sq ft | Reflection factors: Ceiling: 70.0 %, Walls: 50.0 %, Floor: 20.0 % | Light loss factor: 0.80 (fixed) | Clearance height: 9.000 ft | Mounting height: 4.500 ft - 9.000 ft

Building 4 · Storey 3 · Staircase 1

Summary

Results

	Symbol	Calculated
Workplane	\bar{E}	6.29 fc
	\bar{E}/E_{min}	2.77
Consumption values	Consumption	270 kWh/a
Lighting power density	Room	0.25 W/sq ft
	Workplane	0.31 W/sq ft
		0.50 W/sq ft/10 fc

Luminaire list

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
3	Access Fixtures		HUMA AF53XYGWL182A 12W 3000K Downlight	12.0 W	1080 lm	90.0 lm/W
6	CP ASIA (HONG KONG) LIMITED		AF12X62-1161 10.5w 3000K Surface Mount	10.2 W	586 lm	57.4 lm/W

Glossary

A

A Formula symbol for a surface in the geometry

B

Background area The background area borders the direct ambient area according to DIN EN 12464-1 and reaches up to the borders of the room. In larger rooms, the background area is at least 3 m wide. It is located horizontally at floor level.

C

CCT (Engl. correlated color temperature)
 Body temperature of a thermal radiator that serves to describe its light color. Unit: Kelvin [K]. The lesser the numerical value the redder; the greater the numerical value the bluer the light color. The color temperature of gas-discharge lamps and semi-conductors are termed "correlated color temperature" in contrast to the color temperature of thermal radiators.

Allocation of the light colors to the color temperature ranges acc. to EN 12464-1:

Light color - color temperature [K]
 warm white (ww) < 3,300 K
 neutral white (nw) ≥ 3,300 – 5,300 K
 daylight white (dw) > 5.300 K

Clearance height The designation for the distance between upper edge of the floor and bottom edge of the ceiling (in the completely furnished status of room).

CRI (Engl. color rendering index)
 Designation for the color rendering index of a luminaire or a lamp acc. to DIN 6169: 1976 or CIE 13.3: 1995.

The general color rendering index Ra (or CRI) is a dimensionless figure that describes the quality of a white light source in regards to its similarity with the remission spectra of defined 8 test colors (see DIN 6169 or CIE 1974) to a reference light source.

D

Daylight factor Ratio of the illuminance achieved solely by daylight incidence at a point in the inside to the horizontal illuminance in the outer area under an unobstructed sky.

Formula symbol: D (Engl. daylight factor)
 Unit: %

Glossary

Daylight quotient effective area	A calculation surface within which the daylight quotient is calculated.
E	
Eta (η)	(light output ratio) The light output ratio describes what percentage of the luminous flux of a free radiating lamp (or LED module) is emitted by the luminaire when installed. Unit: %
G	
g1	Often also U_0 (Engl. overall uniformity) Designates the overall uniformity of the illuminance on a surface. It is the quotient from E_{min} to \bar{E} and is required, for instance, in standards for illumination of workstations.
g2	Actually it designates the "non-uniformity" of the illuminance on a surface. It is the quotient of E_{min} to E_{max} and is generally only relevant for certifying the emergency lighting acc. to EN 1838.
I	
Illuminance	Describes the ratio of the luminous flux that strikes a certain surface to the size of this surface ($lm/m^2 = lx$). The illuminance is not tied to an object surface. It can be determined anywhere in space (inside or outside). The illuminance is not a product feature because it is a recipient value. Luxometers are used for measuring. Unit: Lux Abbreviation: lx Formula symbol: E
Illuminance, adaptive	For the determining of the middle adaptive illuminance on a surface, this is rastered "adaptively". In the area of large illuminance differences within the surface, the raster is subdivided finer; within lesser differences, a rougher classification is made.
Illuminance, horizontal	Illuminance that is calculated or measured on a horizontal (level) surface (this can be for example a table top or the floor). The horizontal illuminance is usually identified by the formula letter E_h .
Illuminance, perpendicular	Illuminance that is calculated or measured plumb-vertical to a surface. This needs to be taken into account for tilted surfaces. If the surface is horizontal or vertical, then there is no difference between the perpendicular and the horizontal or vertical illuminance.

Glossary

<p>Illuminance, vertical</p>	<p>Illuminance that is calculated or measured on a vertical surface (this can be for example the front of some shelves). The vertical illuminance is usually identified by the formula letter E_v.</p>
<hr/>	
<p>L</p>	
<p>LENI</p>	<p>(Engl. lighting energy numeric indicator) Lighting energy numeric indicator acc. to EN 15193</p> <p>Unit: kWh/m² year</p>
<hr/>	
<p>Light loss factor</p>	<p>See MF</p>
<hr/>	
<p>LLMF</p>	<p>(Engl. lamp lumen maintenance factor)/acc. to CIE 97: 2005 Lamp flux maintenance factor that takes the luminous flux reduction into account of a luminaire or an LED module in the course of the operating time. The lamp flux maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no luminous flux reduction existing).</p>
<hr/>	
<p>LMF</p>	<p>(Engl. luminaire maintenance factor)/acc. to CIE 97: 2005 Luminaire maintenance factor that takes the soiling into account of the luminaire in the course of the operating time. The luminaire maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no soiling existing).</p>
<hr/>	
<p>LSF</p>	<p>(Engl. lamp survival factor)/acc. to CIE 97: 2005 Lamp survival factor that takes the total failure into account of a luminaire in the course of the operating time. The lamp survival factor is specified as a decimal digit and can have a maximum value of 1 (no failures existing within the time concerned or prompt replacement after the failure).</p>
<hr/>	
<p>Luminance</p>	<p>Dimension for the "brightness impression" that the human eye has of a surface. The surface itself can emit light thereby or light striking it can be reflected (emitter value). It is the only photometric value that the human eye can perceive.</p> <p>Unit: Candela per square meter Abbreviation: cd/m² Formula symbol: L</p>
<hr/>	
<p>Luminous efficacy</p>	<p>Ratio of the emitted luminous flux Φ [lm] to the absorbed electrical power P [W] Unit: lm/W.</p> <p>This ratio can be formed for the lamp or LED module (lamp or module light output), the lamp or module with control gear (system light output) and the complete luminaire (luminaire light output).</p>
<hr/>	

Glossary

Luminous flux	<p>Dimension for the total light output that is emitted from one light source in all directions. It is thus an "emitter value" that specifies the entire emitting output. The luminous flux of a light source can only be determined in a laboratory. A difference is made between the lamp or LED module luminous flux and the luminaire luminous flux.</p>
	<p>Unit: Lumen Abbreviation: lm Formula symbol: Φ</p>
Luminous intensity	<p>Describes the intensity of the light in a certain direction (emitter value). The luminous intensity is a matter of the luminous flux Φ that is emitted in a certain spherical angle Ω. The radiation characteristics of a light source are presented graphically in a light distribution curve (LDC). The luminous intensity is an SI base unit.</p>
	<p>Unit: Candela Abbreviation: cd Formula symbol: I</p>
M	
MF	<p>(Engl. maintenance factor)/acc. to CIE 97: 2005 Maintenance factor as decimal number between 0 and 1 that describes the ratio of the new value of a photometric planning parameter (e.g. of the illuminance) to a maintenance value after a certain time. The maintenance factor takes into account the soiling of luminaires and rooms as well as the luminous flux reduction and the failure of light sources. The maintenance factor is taken into account either overall or determined in detail acc. to CIE 97: 2005 by the formula $RMF \times LMF \times LLMF \times LSF$.</p>
P	
P	<p>(Engl. power) Electric power consumption</p> <p>Unit: watt Abbreviation: W</p>
R	
Reflection factor	<p>The reflection degree of a surface describes how much of the striking light is reflected back. The reflection degree is defined by the color of the surface.</p>

Glossary

RMF	(Engl. room surface maintenance factor)/acc. to CIE 97: 2005 Room surface maintenance factor that takes the soiling into account of the space encompassing surfaces in the course of the operating time. The room surface maintenance factor is specified as a decimal digit and can have a maximum value of 1 (no soiling existing).
S	
Surrounding area	The ambient area directly borders the area of the visual task and should be planned with a width of at least 0.5 m according to DIN EN 12464-1. It is at the same height as the area of the visual task.
U	
UGR (max)	(unified glare rating) Measure for the psychological glare effect in interiors. In addition to luminaire luminance, the UGR value also depends on the position of the observer, the viewing direction and the ambient luminance. Among other things, EN 12464-1 specifies maximum permissible UGR values for various indoor workplaces.
UGR observer	Calculation point in the room, for the DIALux the UGR value is determined. The location and height of the calculation point should correspond to the typical observer position (position and eye level of the user).
V	
Visual task area	The area that is needed for carrying out the visual task in accordance with DIN EN 12464-1. The height corresponds with the height at which the visual task is executed.
W	
Wall zone	Circumferential area between working plane and walls that is not taken into account for the calculation.
Workplane	Virtual measuring or calculation surface at the height of the visual task that generally follows the room geometry. The working plane may also feature a wall zone.