

A nighttime photograph of a residential street. A street lamp is visible in the distance, casting a glow on the road. The sky is dark, and the silhouettes of houses and trees are visible in the background. The text is overlaid on this image.

Land South of Lewis Court, Goose Street, Southwick, BA14 9RQ Lighting Strategy

February 2026

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1. Introduction

1.1 Background

Ashford Homes is proposing to build a nine dwelling residential development on Land South of Lewis Court, Goose St, Southwick, BA14 9RQ. A general layout of the site masterplan is included in Appendix A.

EDS was subsequently appointed to assess the potential impact of artificial light and develop a lighting strategy to support the planning application.

1.2 Objective

This report forms the lighting strategy and describes the exterior lighting proposals and how environmental impact is minimised.

The key objectives of the lighting strategy is to demonstrate the following;

- ***Location, type, number, and specification of all external light sources***
- ***A lux contour plan covering internal and external light spill***
- ***Demonstration that roost entrances and commuting/foraging corridors will remain unlit. (≤ 0.5 lux)***

The approach to lighting for new development, including lighting survey, should be undertaken in accordance with Guidance Note 08/23 Bats and Artificial Lighting at Night (Bat Conservation Trust and Institution of Lighting Professionals, 2023)

In addressing these objectives there is also a need to provide a sustainable solution that minimises energy usage and carbon emissions.

1.3 Scope

The study will consider the potential impact of artificial light at the sensitive locations advised by the project team.

The strategy will include a proposed lighting layout supported with a luminaire specification, positions and lux contours suitable for planning.

2. Environmental Considerations

In order to minimise obtrusive light and its impact on the local ecology within and beyond the development special considerations are necessary, the key objectives being to:

- Keep the number and wattage of light sources to a minimum;
- Keep the height of light sources to a minimum;
- Avoid direct upward light above the horizontal to maintain a 'dark sky';
- Maintain 'dark corridors' and minimise light trespass at environmentally sensitive locations, e.g. bat roosts and flight lines; and
- Follow the principles described in the Institution of Lighting Professionals Guidance Notes for the Reduction of Obtrusive light (GN01:2011).

3. Lighting Proposals

The proposed lighting design is outlined on drawing in Appendix B. The drawing shows indicative luminaire locations positions, details of a suitable luminaire and projected lux contours (horizontal).

Where proposed lighting is in the vicinity of proposed Bat boxes, lux values have also been shown in vertical illuminance.

It should be noted that the lux values exclude the screening effect of rear shields, buildings, trees etc. The 0.2 lux contour is of particular significance as the generally accepted threshold for illuminance in the vicinity of bat habitats.

Private Property mounted lighting proposals;

Special consideration is required to reduce the spill of light due to bat activity, therefore a downward LED light source has been specified. Downward lighting has been proposed throughout the site (Unit type A shown in Figure 1), and units adjacent to sensitive areas will be specified with a front louvre (Unit type B shown in Figure 2). Manufacturer's literature is included in Appendix C.

**Figure 1 - Proposed (Lux Layout Unit Ref A)
Ansell Reef Directional (No upward lighting)**



**Figure 2 – Proposed (Lux Layout Unit Ref B)
Ansell Reef 'S' Directional (No upward lighting)**

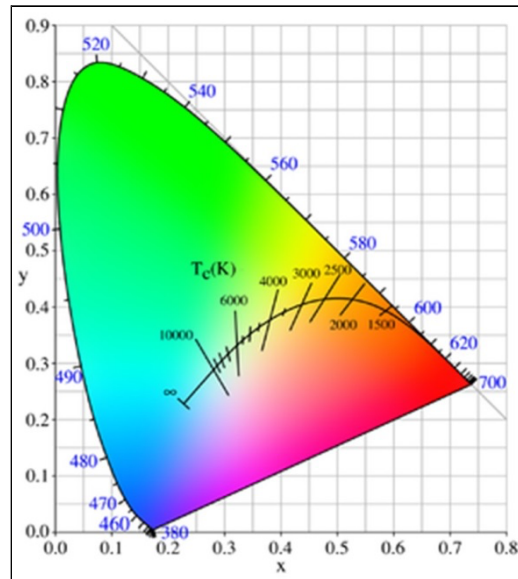


without front louvre (for illustration) with front louvre (Proposed)

White light sources such as LED have the benefit of excellent colour rendering properties with the ability to improve the night-time environment for users. LEDs also emit virtually no ultra violet light given that other light sources with a high UV content, particularly at the blue end of the spectrum can be detrimental to ecology and have a negative impact on bats and invertebrates.

LED luminaires are predominantly available in 'neutral' white with colour temperatures of 4000°K. With reference to the chromaticity diagram below (Figure 3) it can be seen that the proposed 'warm' white 3000°K LEDs are nearer the yellow/orange end of the colour spectrum.

Figure 3 - Chromaticity Diagram with Black Body Locus



4. Summary

The proposed exterior lighting scheme for the development is optimised to minimize light spill and the potential effects of artificial light on local ecology. An LED light source is specified with no UV content and a warm colour temperature with a lower blue light content that is more sympathetic to bats.

Due to the sensitivity of bats to artificial light sources, illuminance levels close to natural moonlight ≤ 0.5 lux are normally preferred. The projected horizontal illuminance contours indicate that the impact on the environment and local ecology will be low. The key features are:

- An environmentally sensitive lighting scheme with low lighting levels and a directional LED light source to reduce lightspill and maintain dark corridors throughout the site.
- The proposals follow the principles and guidance set out in Institute of Lighting Engineers in their publications "Guidance Notes for the Reduction of Obtrusive Light (ILE, 2005)" and Guidance Note 08/23 Bats and Artificial Lighting in the UK

In summary, the sympathetic lighting design and control measures will ensure that any adverse impacts in all sensitive receptors are minimal, including ecological receptors (primarily bats), the night sky and viewpoints in the surrounding area.

Appendix A

Proposed Site Legal Plan

RESIDENTIAL ACCOMMODATION SCHEDULE							
Plot Number	Number of Beds	Parking Spaces + Garage Spaces	Garage - Type & Area	Gross Internal Area (SQM)	Gross Internal Area (SQFT)	Plot Footprint (SQM)	Garden Footprint (SQM)
01	4	2 + 1G	Single - 18 SQM	143	1539	86	238
02	4	2 + 1G	Single - 18 SQM	143	1539	86	163
03	3	2	-	96	1038	58	58
04	3	2	-	96	1038	58	120
05	4	2 + 1G	Single - 18 SQM	143	1539	86	105
06	4	2 + 2G	Double - 36 SQM	161	1731	98	102
07	4	2 + 1G	Single - 18 SQM	143	1539	86	99
08	4	2 + 2G	Double - 36 SQM	161	1731	98	223
09	4	2 + 2G	Double - 36 SQM	161	1731	98	176

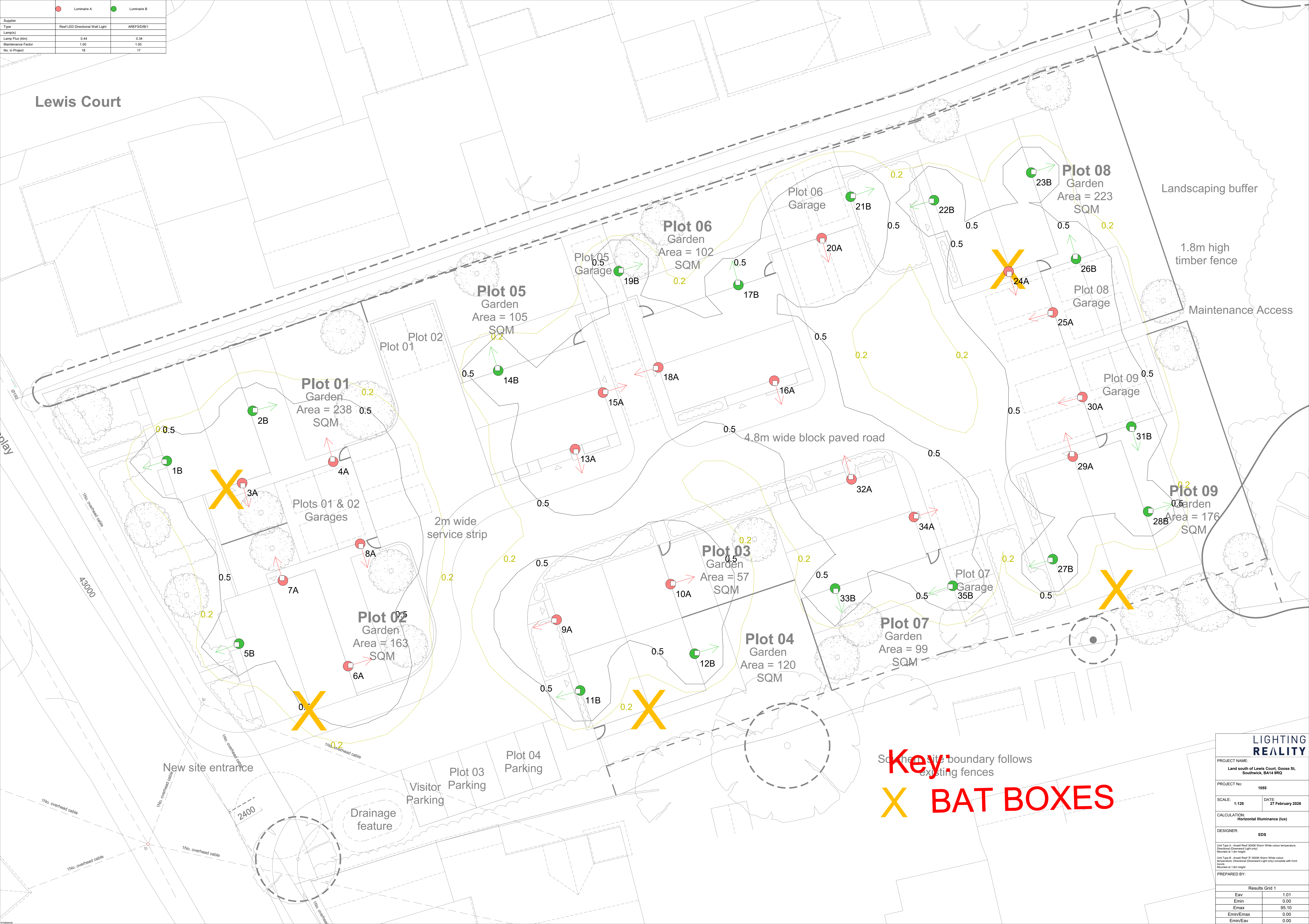


Appendix B

Proposed Lighting Drawing & Calculations

Supplier	Luminaire A	Luminaire B
Type	Reef LED Directional Wall Light	AREFSQVB/1
Lamp(s)		
Lamp Flux (lm)	0.44	0.34
Maintenance Factor	1.00	1.00
No. in Project	18	17

Lewis Court



Key:
Site boundary follows existing fences
X BAT BOXES

LIGHTING REALITY	
PROJECT NAME: Land south of Lewis Court, Goose St, Southwick, BA14 9RQ	
PROJECT No:	1055
SCALE:	1:125
DATE:	27 February 2026
CALCULATION: Horizontal Illuminance (lux)	
DESIGNER: EDS	
Unit Type A - Ansell Reef 3000K Warm White colour temperature, Directional (Downward Light only), Mounted at 1.8m height Unit Type B - Ansell Reef 3000K Warm White colour temperature, Directional (Downward Light only) complete with front baffle, Mounted at 1.8m height	
PREPARED BY:	
Results Grid 1	
Eav	1.01
Emin	0.00
Emax	95.10
Emin/Emax	0.00
Emin/Eav	0.00

DATE: 27 February 2026

DESIGNER: EDS

PROJECT No: 1055

PROJECT NAME: Land south of Lewis Court, Goose St, Southwick, BA14 9RQ

**LIGHTING
REALITY**

Unit Type A - Ansell Reef 3000K Warm White colour temperature,
Directional (Downward Light only)
Mounted at 1.8m height

Unit Type B - Ansell Reef 'S' 3000K Warm White colour
temperature, Directional (Downward Light only) complete with front
louvre.
Mounted at 1.8m height

Outdoor Lighting Report

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin -956.4m x 449.2m
Area 142.4m x 93.7m
Sample Spacing 1.50m x 1.49m

Luminaires

Luminaire A Data

Supplier	
Type	Reef LED Directional Wall Light
Lamp(s)	
Lamp Flux (klm)	0.44
File Name	AREELEDWLD (3000K).ldt
Maintenance Factor	1.00
I _{max} 70,80,90(cd/klm)	81.3, 35.8, 2.8
No. in Project	18

Luminaire B Data

Supplier	
Type	AREFS/D/B/1
Lamp(s)	
Lamp Flux (klm)	0.34
File Name	AREFS_D_B_1 3000K.ies
Maintenance Factor	1.00
I _{max} 70,80,90(cd/klm)	5.2, 2.5, 0.6
No. in Project	17

Layout

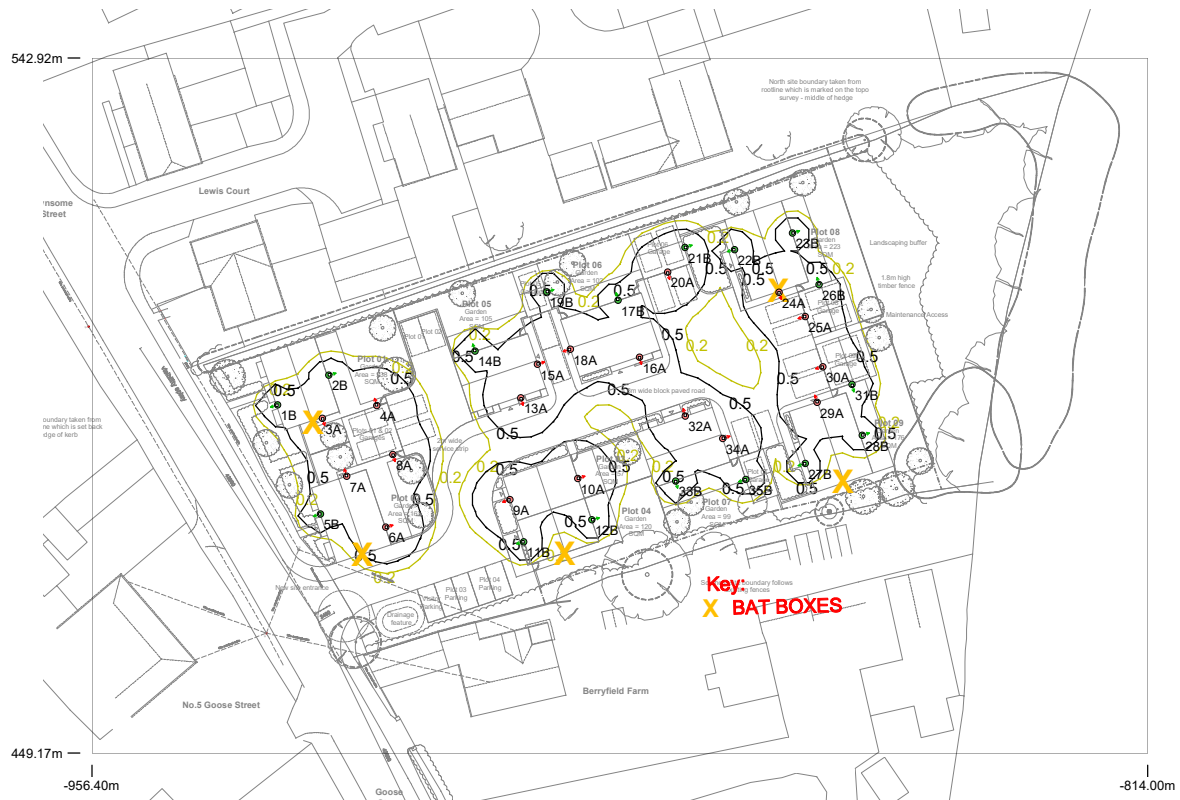
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	B	-931.37	496.13	1.80	196.00	0.00	0.00	0.10			
2	B	-924.47	500.16	1.80	14.00	0.00	0.00	0.10			
3	A	-925.32	494.35	1.80	286.00	0.00	0.00	0.10			
4	A	-918.00	496.07	1.80	106.00	0.00	0.00	0.10			
5	B	-925.57	481.45	1.80	200.00	0.00	0.00	0.10			
6	A	-916.81	479.64	1.80	17.00	0.00	0.00	0.10			
7	A	-922.05	486.52	1.80	108.00	0.00	0.00	0.10			
8	A	-915.84	489.47	1.80	287.00	0.00	0.00	0.10			
9	A	-900.06	483.37	1.80	199.00	0.00	0.00	0.10			
10	A	-890.91	486.23	1.80	17.00	0.00	0.00	0.10			
11	B	-898.17	477.68	1.80	196.00	0.00	0.00	0.10			
12	B	-888.98	480.64	1.80	17.00	0.00	0.00	0.10			
13	A	-898.57	497.08	1.80	286.00	0.00	0.00	0.10			
14	B	-904.75	503.39	1.80	107.00	0.00	0.00	0.10			
15	A	-896.34	501.62	1.80	17.00	0.00	0.00	0.10			
16	A	-882.59	502.58	1.80	287.00	0.00	0.00	0.10			
17	B	-885.47	510.27	1.80	104.00	0.00	0.00	0.10			
18	A	-891.90	503.65	1.80	197.00	0.00	0.00	0.10			
19	B	-895.08	511.38	1.80	17.00	0.00	0.00	0.10			
20	A	-878.78	514.03	1.80	286.00	0.00	0.00	0.10			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out- reach	Target X	Target Y	Target Z
21	B	-876.45	517.36	1.80	19.00	0.00	0.00	0.10			
22	B	-869.76	517.08	1.80	196.00	0.00	0.00	0.10			
23	B	-861.95	519.30	1.80	18.00	0.00	0.00	0.10			
24	A	-863.76	511.35	1.80	287.00	0.00	0.00	0.10			
25	A	-860.21	508.06	1.80	196.00	0.00	0.00	0.10			
26	B	-858.35	512.36	1.80	105.00	0.00	0.00	0.10			
27	B	-860.22	488.23	1.80	197.00	0.00	0.00	0.10			
28	B	-852.55	492.07	1.80	17.00	0.00	0.00	0.10			
29	A	-858.61	496.48	1.80	107.00	0.00	0.00	0.10			
30	A	-857.84	501.27	1.80	195.00	0.00	0.00	0.10			
31	B	-853.91	498.89	1.80	286.00	0.00	0.00	0.10			
32	A	-876.38	494.65	1.80	107.00	0.00	0.00	0.10			
33	B	-877.70	485.88	1.80	286.00	0.00	0.00	0.10			
34	A	-871.37	491.63	1.80	17.00	0.00	0.00	0.10			
35	B	-868.25	486.10	1.80	198.00	0.00	0.00	0.10			

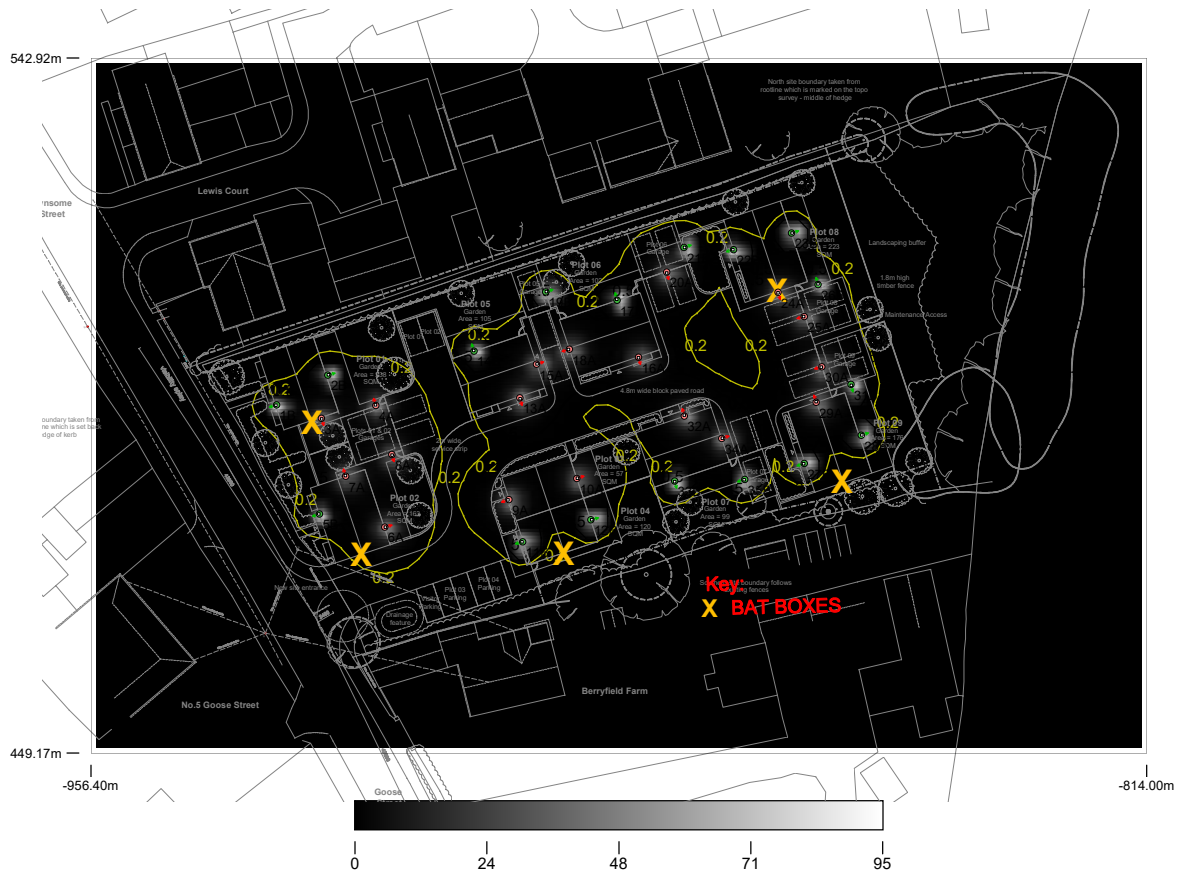
Horizontal Illuminance (lux)

Grid 1

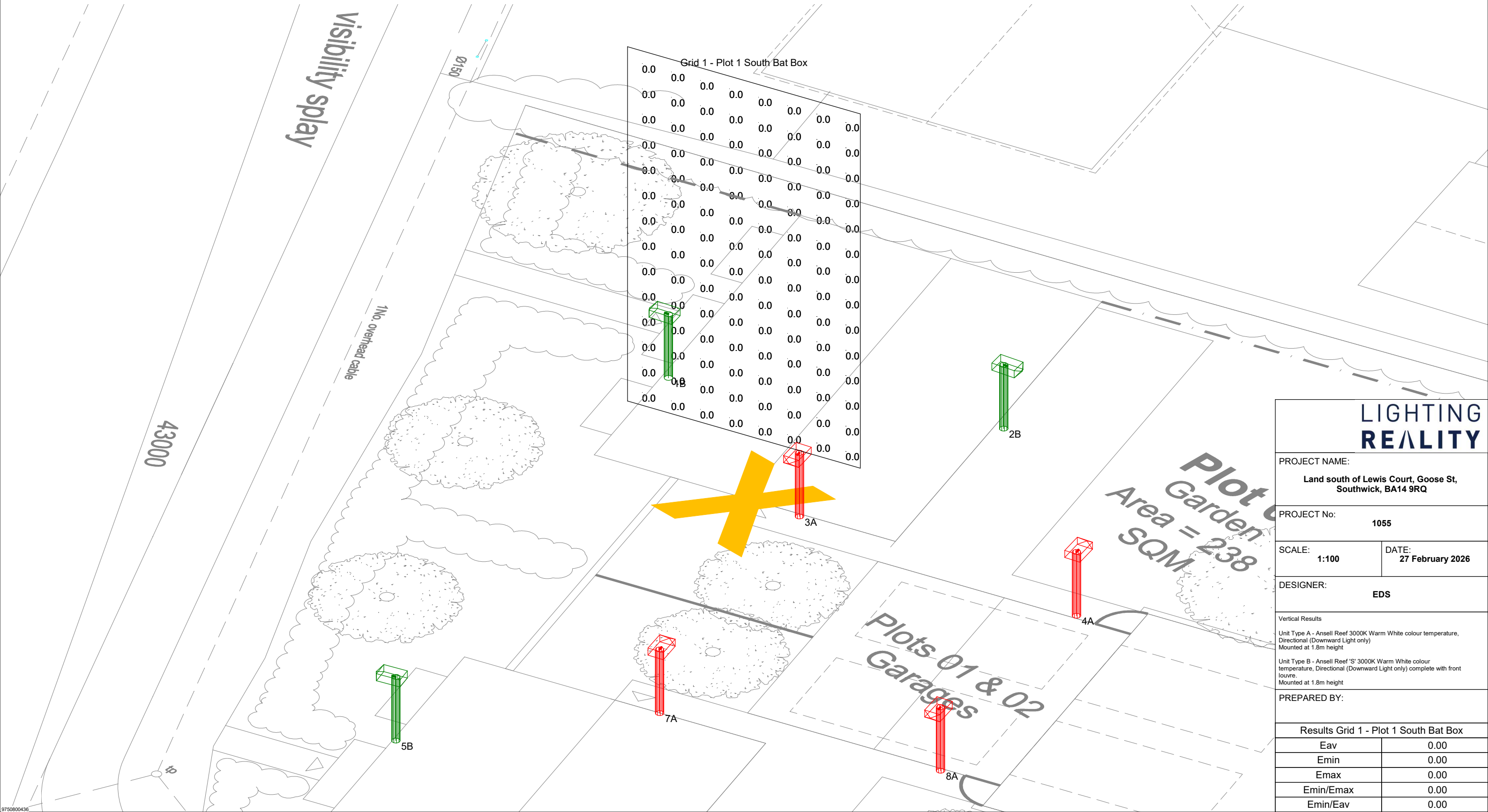


Horizontal Illuminance (lux)

Grid 1

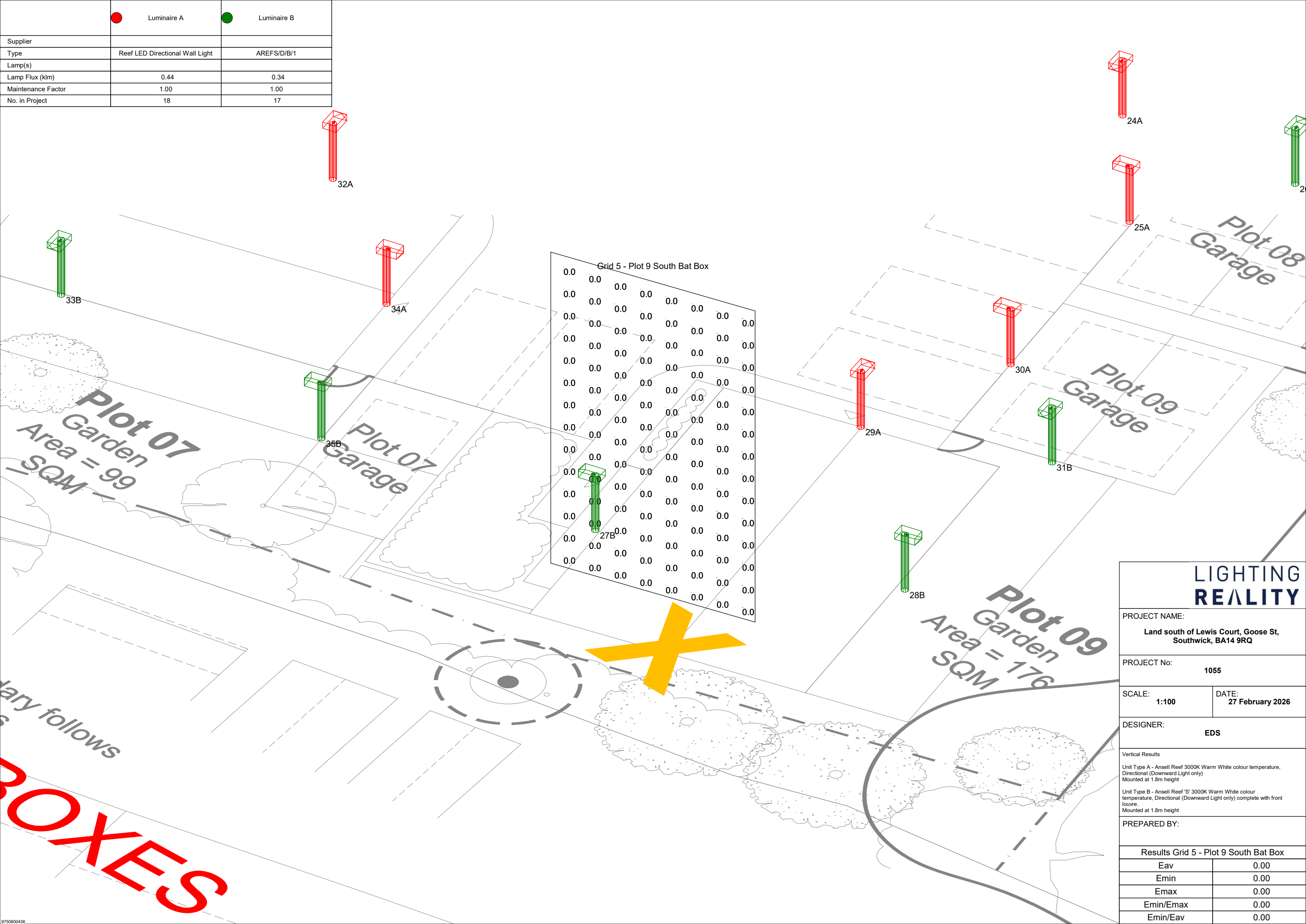


	Luminaire A	Luminaire B
Supplier		
Type	Reef LED Directional Wall Light	AREFS/D/B/1
Lamp(s)		
Lamp Flux (klm)	0.44	0.34
Maintenance Factor	1.00	1.00
No. in Project	18	17



LIGHTING REALITY	
PROJECT NAME: Land south of Lewis Court, Goose St, Southwick, BA14 9RQ	
PROJECT No: 1055	
SCALE: 1:100	DATE: 27 February 2026
DESIGNER: EDS	
Vertical Results Unit Type A - Ansell Reef 3000K Warm White colour temperature, Directional (Downward Light only) Mounted at 1.8m height Unit Type B - Ansell Reef 'S' 3000K Warm White colour temperature, Directional (Downward Light only) complete with front louvre Mounted at 1.8m height	
PREPARED BY:	
Results Grid 1 - Plot 1 South Bat Box	
Eav	0.00
Emin	0.00
Emax	0.00
Emin/Emax	0.00
Emin/Eav	0.00

	Luminaire A	Luminaire B
Supplier		
Type	Reef LED Directional Wall Light	AREFS/D/B/1
Lamp(s)		
Lamp Flux (klm)	0.44	0.34
Maintenance Factor	1.00	1.00
No. in Project	18	17



LIGHTING REALITY	
PROJECT NAME: Land south of Lewis Court, Goose St, Southwick, BA14 9RQ	
PROJECT No: 1055	
SCALE: 1:100	DATE: 27 February 2026
DESIGNER: EDS	
Vertical Results Unit Type A - Ansell Reef 3000K Warm White colour temperature, Directional (Downward Light only) Mounted at 1.8m height Unit Type B - Ansell Reef 'S' 3000K Warm White colour temperature, Directional (Downward Light only) complete with front louvre Mounted at 1.8m height	
PREPARED BY:	
Results Grid 5 - Plot 9 South Bat Box	
Eav	0.00
Emin	0.00
Emax	0.00
Emin/Emax	0.00
Emin/Eav	0.00

Appendix C

Manufacturer's Literature



@ansell_lighting



ansellighting



Ansell Lighting



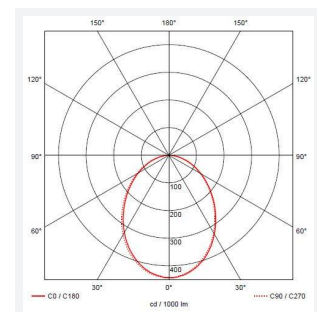
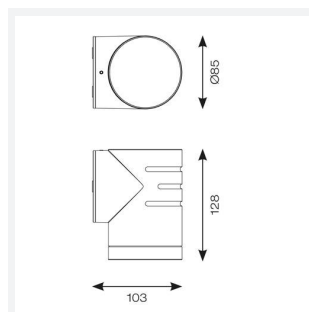
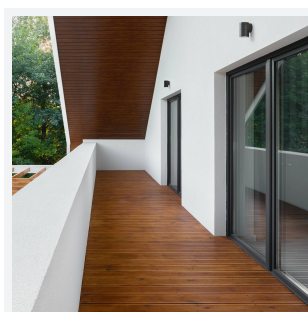
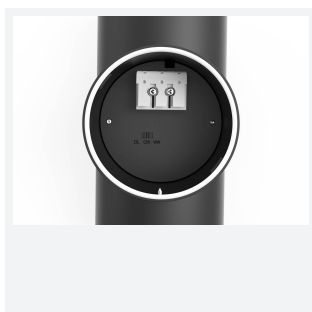
ansell_lighting

Reef Directional

Reef CCT Directional Wall Light Black

Code: AREELEDWLD

Category	Wall Lights
Application	Hospitality, Outdoor, Residential, Retail
Specification	Architectural



PRODUCT FEATURES

- Durable outdoor directional wall light suitable for residential and hospitality applications
- Choice of matt white or black finishes
- CCT selectable between 3000K, 4000K and 6000K
- Non-dimmable
- Installation in either upward or downward orientation
- Polycarbonate construction ideal for coastal applications
- Unique lockable installation base plate with push fit loop-in loop-out terminals for ease of installation

GENERAL INFORMATION	
Wattage	5W
Lumens Delivered	430lm - 410lm (3000K - 6000K)
Lm/W	85lm/W - 82lm/W (3000K - 6000K)
Beam Angle	90
CRI	80
CCT	3000/4000/6000K
Input	220/240V
Operating Temp	-20°C - 40°C
SDCM	6

TECHNICAL INFORMATION	
Light Source	LED
Colour / Finish	Black
IP Rating	IP65
Class Protection	2
Internal / External	Internal / External
Surface / Recessed / Suspended	Wall
Lumen Depreciation	L80 54,000h
Warranty (Years)	3
CE Mark	Yes
Diameter	85 mm
Height	128 mm





Category	Wall Lights
Application	Hospitality, Outdoor, Residential, Retail
Specification	Architectural

Reef S

Reef S Directional Wall Light Black

Code: AREFS/D/B/1



PRODUCT FEATURES

- Durable outdoor wall light suitable for residential and hospitality applications
- Supplied with 2x interchangeable Gobo inserts, allowing for a variety of decorative beam angle light effects
- Unique lockable installation base plate with push fit loop-in loop-out terminals for ease of installation
- Discrete PIR option available
- Polycarbonate construction ideal for coastal applications
- CCT selectable between 3000K and 4000K
- WAGO park area in the base for quick and efficient wiring
- Non-dimmable

GENERAL INFORMATION

Wattage	5W
Lumens Delivered	350lm
Lm/W	70lm/W
Beam Angle	70
CRI	70
CCT	3000/4000K
Input	220-240V
Operating Temp	-20°C to 40°C
SDCM	6
UGR	21
Product Weight without Packaging	0.275 kg

TECHNICAL INFORMATION

Light Source	LED
Colour / Finish	Black
IP Rating	IP65
Class Protection	2
Internal / External	Internal / External
Surface / Recessed / Suspended	Wall
Lumen Depreciation	L80 B10 40,000h
Warranty (Years)	5
CE Mark	Yes
Height	144 mm



Category	Wall Lights
Application	Hospitality, Outdoor, Residential, Retail
Specification	Architectural

Reef S

Reef S Directional Wall Light Black

Code: AREFS/D/B/1

