



Plot 4 Land at New
Farm, Back Lane,
Alderton, Chippenham,
SN14 6NW

Lighting Strategy

April 2026

Project No: 1103

Doc Ref: 1103/201

Rev: -

Client: Ashford Homes (South Western) Limited

Plot 4 Land at New Farm, Back Lane, Alterton, Chippenham, SN14 6NW. Lighting Strategy

	Name	Date
Prepared by	Jakob Sparrow edslighting.co.uk	13/04/2026

Issue Register

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Appendix A	Proposed Site Legal Plan
Appendix B	Proposed Lighting Drawing & Calculations
Appendix C	Manufacturer’s literature

1. Introduction

1.1 Background

Ashford Homes is proposing to convert existing agricultural barns to form a six dwelling residential development on Plot 4 Land at New Farm, Back Lane, Alderton, Chippenham, SN14 6NW. 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 discharge Condition 5 of PL/2025/09341 which states;

1. *Notwithstanding the details shown on the approved plans, no external lighting shall be installed on site until plans showing the type of light appliance, the height and position of fitting, illumination levels and light spillage in accordance with the appropriate Environmental Zone standards set out by the Institute of Lighting Engineers in their publication “Guidance Notes for the Reduction of Obtrusive Light” (ILE)”, have been submitted to and approved in writing by the Local Planning Authority.*
2. *Any approved lighting shall be installed and maintained in accordance with the approved details and no additional external lighting shall be installed.*

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 Avoidance of Obtrusive light (GN01:2021).

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).

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). Manufacturer's literature is included in Appendix C.

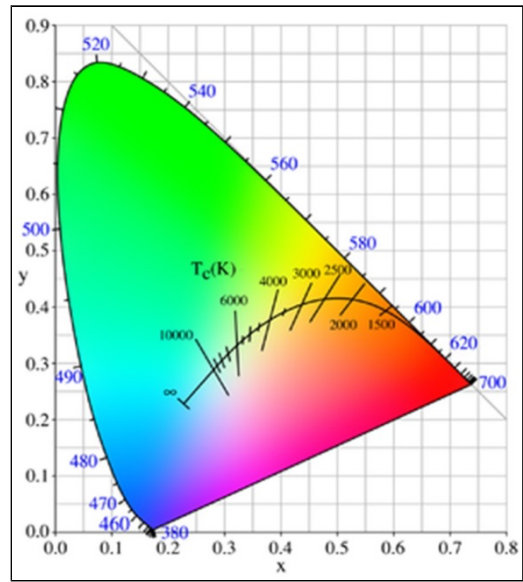
**Figure 1 - Proposed (Lux Layout Unit Ref A)
Ansell Reef Directional (No upward lighting)**



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 2) it can be seen that the proposed 'warm' white 3000°K LEDs are nearer the yellow/orange end of the colour spectrum.

Figure 2 - 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

OLD
SCHOOL
HOUSE

POND
HOUSE

POND
Water Level=124.20

POND

NEW FARM
HOUSE

TOWNFIELD
COTTAGE

EX. COTTAGE

LEGEND

- INDICATES TARMAC SURFACE
- INDICATES LOOSE WASHED CERNEY GRAVEL
- INDICATES BLOCK PAVING - BURN'T OAK
- INDICATES GRASS LAWN AREAS
- INDICATES BRADSTONE MIXED SIZE PATIO PACK
- INDICATES BRADSTONE 900x600 SLABS
- INDICATES NEW HEDGING
- INDICATES PROPOSED TREE PLANTING
- INDICATES RETAINED TREE
- INDICATES TREE TO BE REMOVED
- INDICATES 1.8M HIGH CLOSE BOARD FENCING
- INDICATES 1.2M HIGH POST AND RAIL WITH STOCK PROOF FENCING
- INDICATES 1.2M HIGH ESTATE RAILING AND HEDGE
- T - MARKER INDICATES BOUNDARY OWNERSHIP (POST SIDE)
- INDICATES NEW BOUNDARY STONE WALL - 600MM HIGH WITH COCK & HEN
- INDICATES BOUNDARY STONE WALL - EXISTING LOW WALL
- INDICATES BOUNDARY STONE WALL WITH CEMENT HAUNCHING - EXISTING 2M HIGH

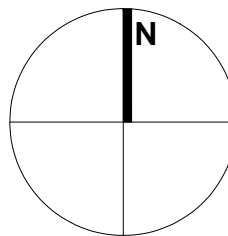
NOTE:
FOR ALL ECOLOGY DETAILS PLEASE SEE DRAWING ALD-113

ASHP SCHEDULE		
PLOT	ASHP	BASE DRAWING
1	EDLA11	AH P 030
2	EDLA08	AH P 035
3	EDLA04	AH P 035
4	EDLA04	AH P 035
5	EDLA04	AH P 035
6	EDLA04	AH P 035



ASHFORD
HOMES
[SOUTH WESTERN] LIMITED

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R 19-03-26 update to 4-5 carport and estate fencing
Q 16-03-26 parking change to block paving, footpaths changed
P 20-02-25 amendments to ground surface materials
N 16-12-25 ASHP info added
M 27-11-25 various amendments (updates to building plans etc)
L 22-10-25 amendments following site review
K 29-08-25 amendments to plot 04
J 14-08-25 amendments following civil engineers review
H 26-06-25 amendments following civil engineers comments
G 06-06-25 amendments to plot floor plans
F 27-02-25 ext levels near plot 2-7 added
E 12-02-25 amendment to paving/patio and site walls
D 07-02-25 labels amended
C 07-02-25 plot 05 shown
B 06-02-25 GF plans shown and proposed FFLs shown.
A 24-09-24 first issue
revisions

Only figured dimensions are to be worked from. Discrepancies must be reported to Ashford Homes.

THIS DRAWING IS COPYRIGHT ©

drawing status
CONSTRUCTION ISSUE

project
NEW FARM
ALDERTON
CHIPPENHAM
SN14 6NW

drawing name
SITE EXTERNAL
WORKS PLAN

drawing no. ALD-001	revision R
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scale 1:250	paper size A1
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date 24-09-2024	
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drawn by PRN	approved by
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ACCOMMODATION SCHEDULE

PLOT No	DESCRIPTION	GEA		GIA		NSA	
		SO.M	SO.FT	SO.M	SO.FT	SO.M	SO.FT
01	4 BED, 2 STOREY BARN CONVERSION	269	2895	217	2335	194	2088
02	4 BED, 2 STOREY BARN CONVERSION	254	2734	192	2067	155	1668
03	2 BED, 1 STOREY BARN CONVERSION	123	1324	98	1055	90	968
04	4 BED, 2 STOREY BARN CONVERSION	194	2088	148	1593	136	1464
05	2 BED, 1 STOREY BARN CONVERSION	105	1130	81	872	76	818
06	3 BED, 1 STOREY BARN CONVERSION	197	2120	164	1765	98	1055
07	PARKING BARN FOR 3 VEHICLES AND BIN STORE - BARN CONVERSION AND EXTENSION	62	667	52	560	0	0
09	PARKING BARN FOR 3 VEHICLES AND BIN STORE - NEW BUILD	65	699	57	613	0	0

Appendix B

Proposed Lighting Drawing & Calculations

	Luminaire A
Supplier	
Type	Reef LED Directional Wall Light
Lamp(s)	
Lamp Flux (klm)	0.44
Maintenance Factor	1.00
No. in Project	28



LIGHTING
REALITY

PROJECT NAME: Plot 4 Land at New Farm	
PROJECT No:	1103
SCALE: 1:250	DATE: 13 April 2026
CALCULATION: Horizontal Illuminance (lux)	
DESIGNER: EDS	
Unit Type A - Aswell Reef 3000K Warm White colour temperature, Directional (Downward Light only) Measured at 1.5m height	
PREPARED BY:	
Results Grid 1	
Eav	0.47
Emin	0.00
Emax	60.11
Emin/Emax	0.00
Emin/Eav	0.00

DATE: 13 April 2026
DESIGNER: EDS
PROJECT No: 1103
PROJECT NAME: Plot 4 Land at New Farm

**LIGHTING
REALITY**

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

Outdoor Lighting Report

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 12.7m x 2.2m
Area 190.8m x 135.2m
Sample Spacing 1.49m 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
Imax70,80,90(cd/klm)	81.3, 35.8, 2.8
No. in Project	28

Layout

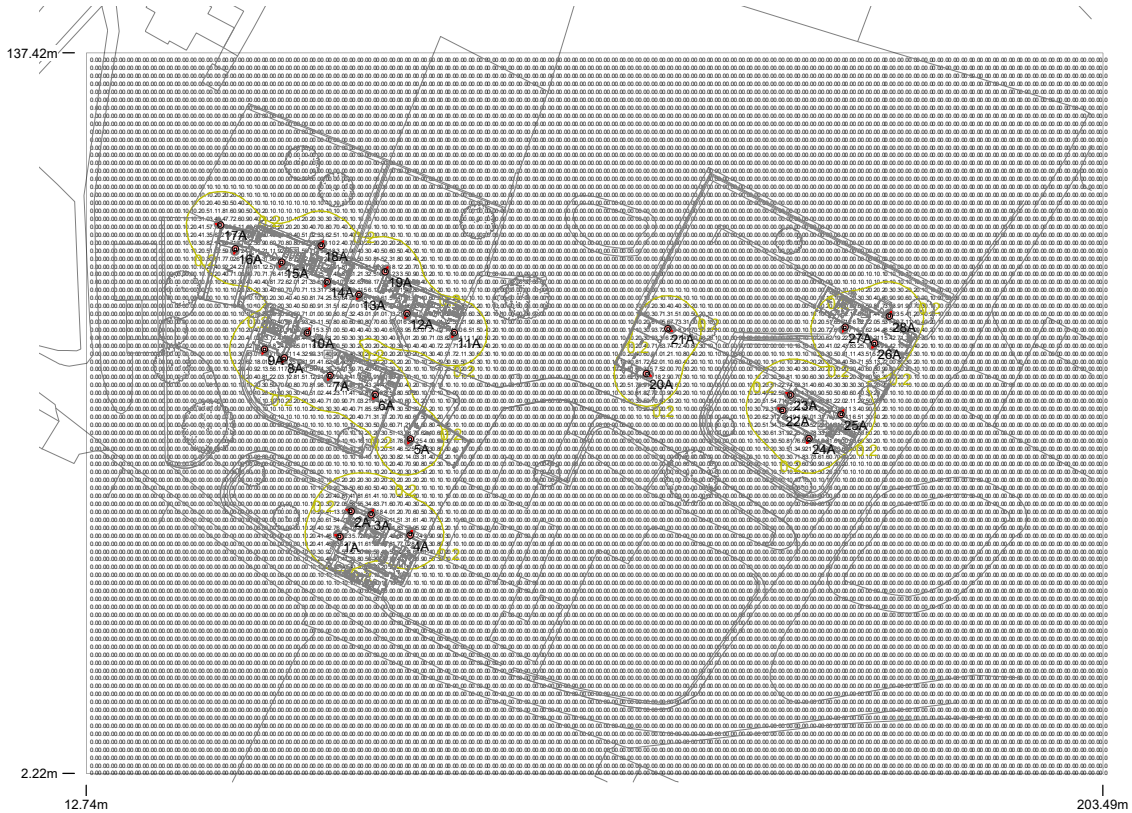
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	60.35	46.65	1.80	161.00	0.00	0.00	0.10			
2	A	62.42	51.43	1.80	161.00	0.00	0.00	0.10			
3	A	66.16	50.80	1.80	66.00	0.00	0.00	0.10			
4	A	73.47	46.94	1.80	66.00	0.00	0.00	0.10			
5	A	73.56	65.01	1.80	242.00	0.00	0.00	0.10			
6	A	66.97	73.33	1.80	243.00	0.00	0.00	0.10			
7	A	58.46	76.91	1.80	246.00	0.00	0.00	0.10			
8	A	49.90	80.17	1.80	243.00	0.00	0.00	0.10			
9	A	46.20	81.84	1.80	243.00	0.00	0.00	0.10			
10	A	54.21	84.86	1.80	66.00	0.00	0.00	0.10			
11	A	81.78	84.95	1.80	246.00	0.00	0.00	0.10			
12	A	72.92	88.54	1.80	246.00	0.00	0.00	0.10			
13	A	63.91	92.11	1.80	246.00	0.00	0.00	0.10			
14	A	57.95	94.50	1.80	246.00	0.00	0.00	0.10			
15	A	49.41	98.17	1.80	246.00	0.00	0.00	0.10			
16	A	40.72	100.68	1.80	257.00	0.00	0.00	0.10			
17	A	37.96	105.11	1.80	167.00	0.00	0.00	0.10			
18	A	56.78	101.23	1.80	65.00	0.00	0.00	0.10			
19	A	68.85	96.36	1.80	65.00	0.00	0.00	0.10			
20	A	117.83	77.23	1.80	332.00	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	A	121.82	85.67	1.80	332.00	0.00	0.00	0.10			
22	A	143.39	70.33	1.80	155.00	0.00	0.00	0.10			
23	A	144.91	73.21	1.80	155.00	0.00	0.00	0.10			
24	A	148.34	65.05	1.80	242.00	0.00	0.00	0.10			
25	A	154.32	69.57	1.80	62.00	0.00	0.00	0.10			
26	A	160.64	82.95	1.80	242.00	0.00	0.00	0.10			
27	A	155.10	85.98	1.80	242.00	0.00	0.00	0.10			
28	A	163.37	87.99	1.80	68.00	0.00	0.00	0.10			

Horizontal Illuminance (lux)

Grid 1



Results

Eav	0.47
Emin	0.00
Emax	60.11
Emin/Emax	0.00
Emin/Eav	0.00

Appendix C

Manufacturer's Literature



@ansell_lighting



ansellighting



Ansell Lighting



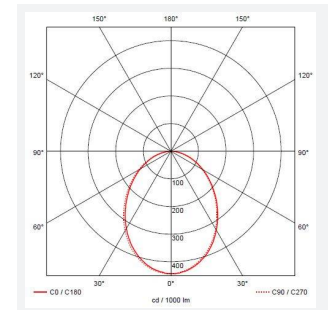
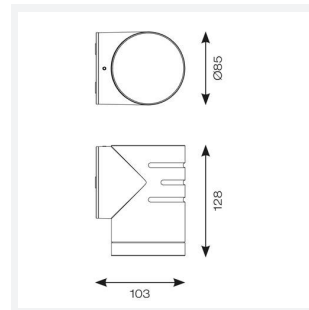
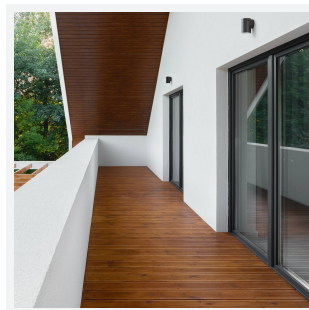
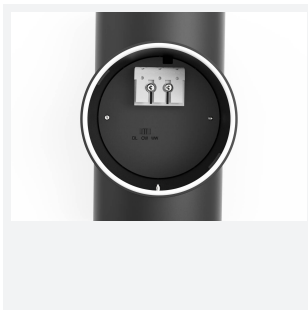
ansell_lighting

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

