



Lighting Scheme Plot 9&10

*Plots 9 & 10,
Cwm Woods Grove,
Heolgerrig,
Merthyr Tydfil,
CF48 1DP*

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External Lighting Scheme

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5 Thornbury Close
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External Lighting Scheme

Plots 9 & 10, Cwm Woods Grove, Heolgerrig

Prepared in accordance with Condition 13 of Planning Permission P/24/0013

1. Objective

This scheme ensures external lighting is sensitive to local biodiversity, particularly bats, and complies with guidance outlined in the Preliminary Ecological Appraisal and Condition 13 of the approved permission. The design maintains dark corridors and avoids light spill onto bat foraging or roosting features.



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2. Lighting Layout and Controls

Location	Fitting Type	Mounting Height	Control Mechanism	Colour Temp	Duration	Max Lux Output
Front Door	LED soffit downlighters	Under soffit (~2.5m)	Wall switch (manual)	≤2700K	User-controlled	~3 lux
Front Elevation	LED soffit downlighters	Under soffit	Wall switch	≤2700K	User-controlled	~3 lux
Rear Elevation	LED soffit downlighters	Under soffit	Wall switch	≤2700K	User-controlled	~3 lux
Side Paths (North & South)	PIR-activated wall lights	≤3.0m	PIR with auto switch-off	≤2700K	5 mins max	≤5 lux
Side Pathways (ambient)	None (natural low-level darkness preserved)	N/A	N/A	N/A	N/A	0 lux (dark corridor)

3. Ecological Compliance

Dark Corridors:

- Both side elevations of the dwellings will function as **dark corridors**, with no fixed illumination above 3.0m and no constant lighting.
- PIR lights are designed to activate only with movement, deactivating within **5 minutes**, and facing toward the property only.

Bat Box Protection:

- No lights are located above, near, or facing bat box locations (as per approved ecology plans).
- Access points for bats remain **unilluminated** at all times (confirmed by lux modelling if required).

Colour Temperature:

- All external lights are **warm white LED** ($\leq 2700\text{K}$), to minimise impact on nocturnal wildlife.

Shielding and Direction:

- All fittings are **downward-directed** or fully shielded to prevent upward or horizontal spill.
- No lighting faces trees, hedgerows, or landscaped rain gardens.

4. Maintenance and Management

Occupiers will be provided with guidance to:

- Use lighting only when necessary.
- Avoid leaving manually switched lights on overnight.
- Maintain PIR and timer settings in accordance with this scheme.

5. Conclusion

This lighting design achieves a balance between practical residential safety and ecological responsibility. It ensures compliance with **Condition 13**, protecting bat corridors and roost features while meeting domestic needs.