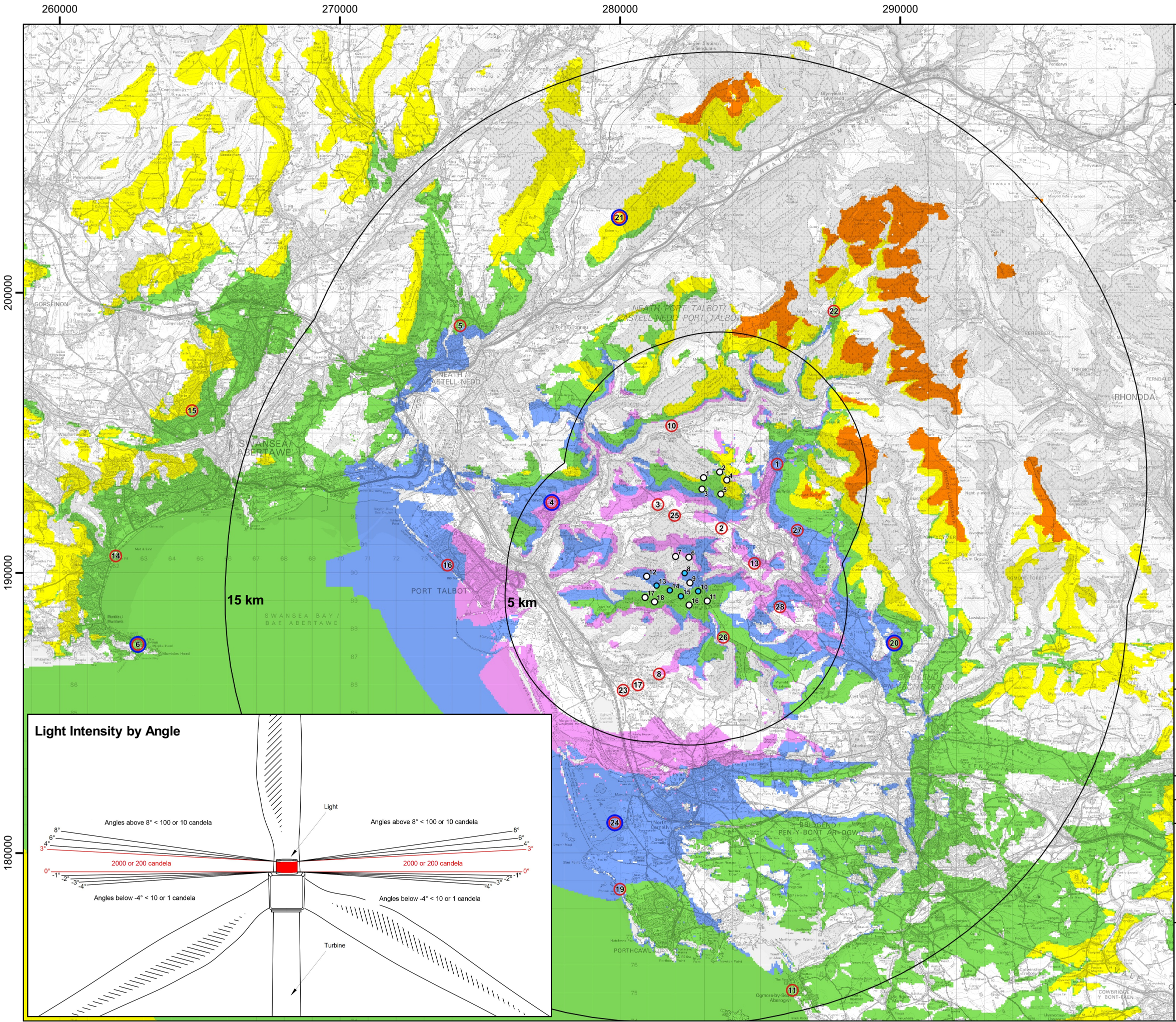




Project:
**Y Bryn Wind Farm, Neath
Port Talbot/Bridgend**

Title:
**Figure 8.82: Theoretical
Visibility of Aviation Lighting by
Intensity - Overview**

- Key**
- Turbine with visible lighting
 - Other proposed turbine
 - Viewpoint
 - Night-time viewpoint
 - Distance from outermost turbines
- Theoretical visibility of predicted lighting intensity**
- 0° to 3° (2000 candela)
 - 3° to 4° (2000 candela reducing to 1400 candela)
 - 0° to -1° (2000 candela reducing to 750 candela)
 - 1° to -2° (750 candela reducing to 80 candela)
 - 2° to -3° (80 candela reducing to 40 candela)
 - 3° to -4° (40 candela reducing to < 10 candela)

Zone of Theoretical Visibility (ZTV) notes:

- * ZTV demonstrates potential visibility of the aviation warning lighting only. Whole or parts of turbines themselves may be visible where no lighting is illustrated.
- * ZTV represents worst case scenario as current CAA requirements allow reduction of lighting intensity to 200 candela beyond 5 km.
- * Predicted visible lighting intensity does not take account of distance.
- * Visibility takes earth curvature and atmospheric refraction into account, but not daylight/weather conditions, buildings, trees or other surface obstacles.
- * ZTV calculated at a range of vertical angles for the 13 lit turbines, of which 1 (T9) is at 175.5 m nacelle height, 2 (T6 & T7) are at 155.5 m nacelle height, and the remaining 10 are at 131.5 m nacelle height.
- * Viewpoint height set at 2 m AGL.

© Crown Copyright 2023. All rights reserved. Ordnance Survey Licence 0100031673.

Scale @ A3: 1:135,000
Coordinate System: British National Grid

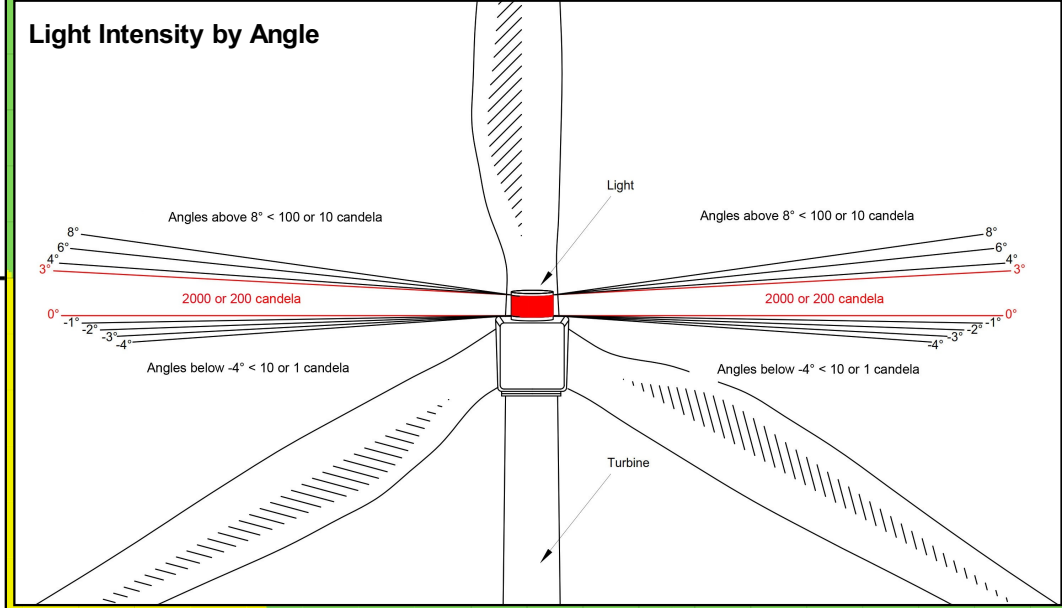
0 1 2 3 4 5 km

N

Date: 30-05-23 Prepared by: DM Checked by: RO

Ref: GB201891_M_074_D Layout: 091222_18t_A

Drawing by:
The Natural Power Consultants Limited
Harbour House,
Y Lanfa,
Aberystwyth,
SY23 1AS, UK
Tel: +44 (0) 1970 636869
Email: sayhello@naturalpower.com
www.naturalpower.com



Notes: a) Information on this plan is directly reproduced from digital and other material from different sources. Minor discrepancies may therefore occur. Where further clarification is considered necessary, this is noted through the use of text boxes on the plan itself. b) For the avoidance of doubt and unless otherwise stated: 1. this plan should be used for identification purposes only, unless otherwise stated in accompanying documentation. 2. The Natural Power Consultants Limited accepts no responsibility for the accuracy of data supplied by third parties. 3. The Natural Power Consultants Limited accepts no liability for any use which is made of this plan by a party other than its client. No third party who gains access to this plan shall have any claim against The Natural Power Consultants Limited in respect of its contents.