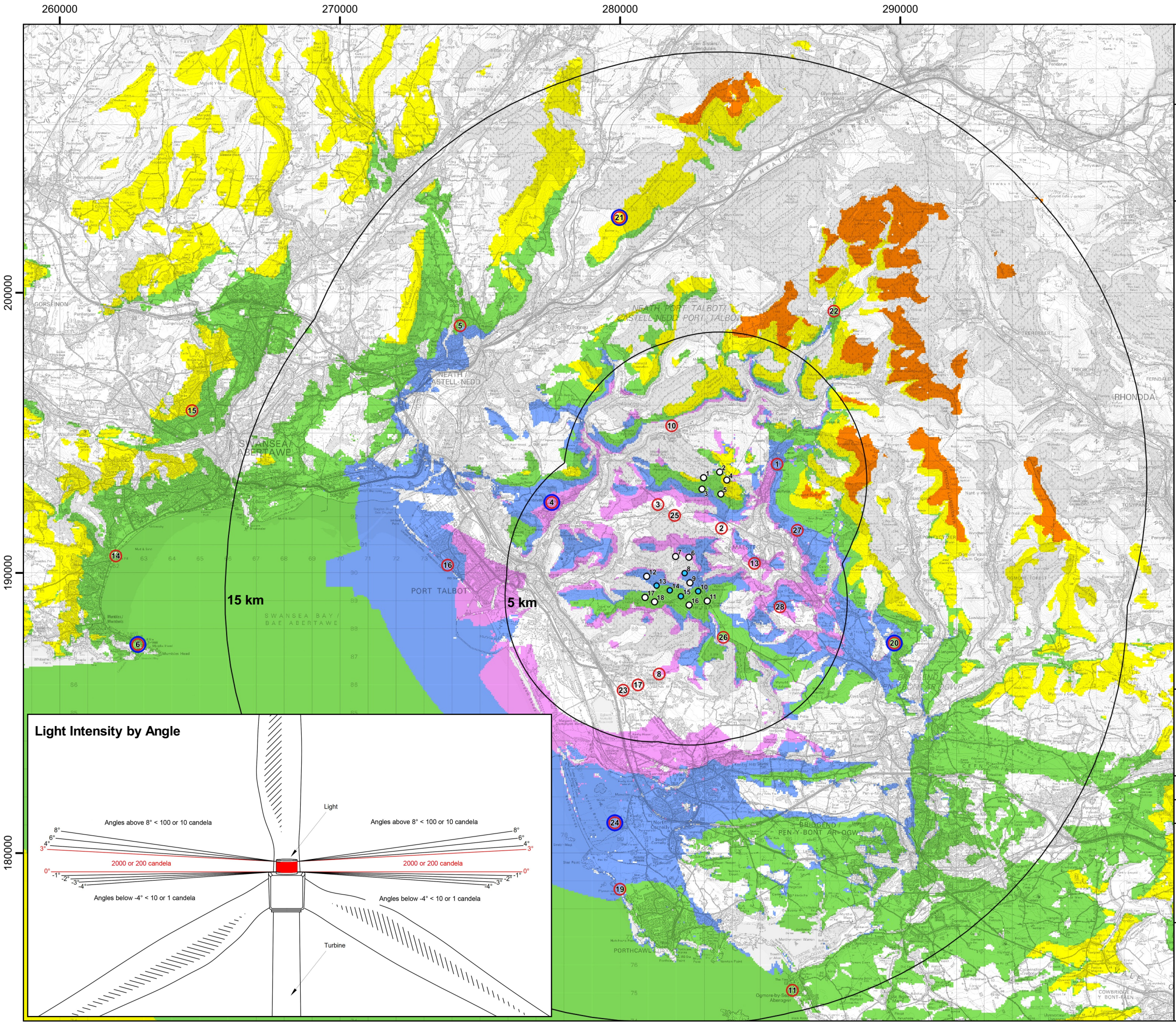




Project:
**Y Bryn Wind Farm, Neath
Port Talbot/Bridgend**

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.

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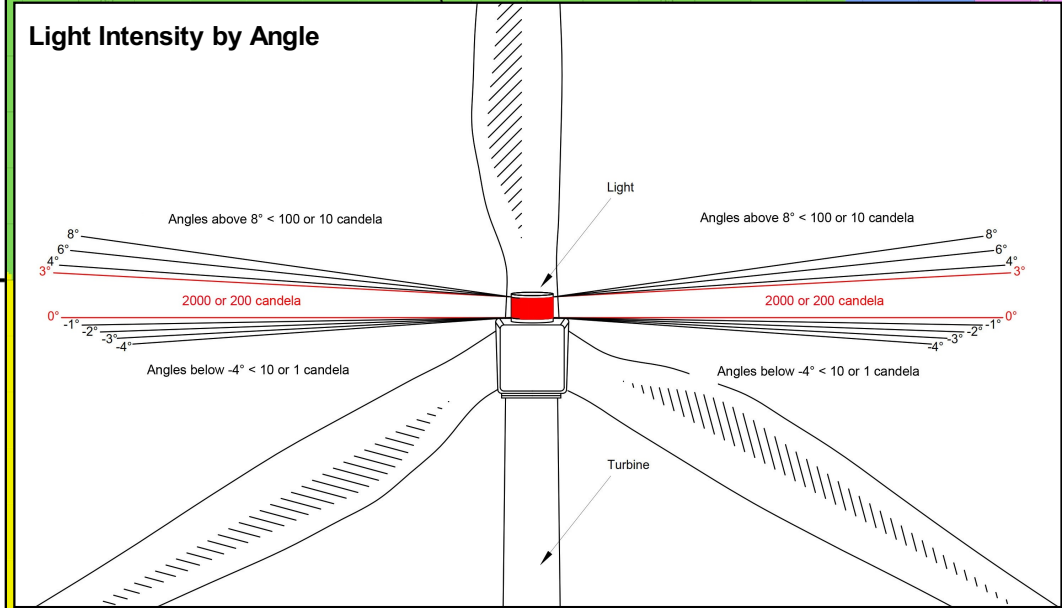
Scale @ A3: 1:135,000
Coordinate System: British National Grid

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

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