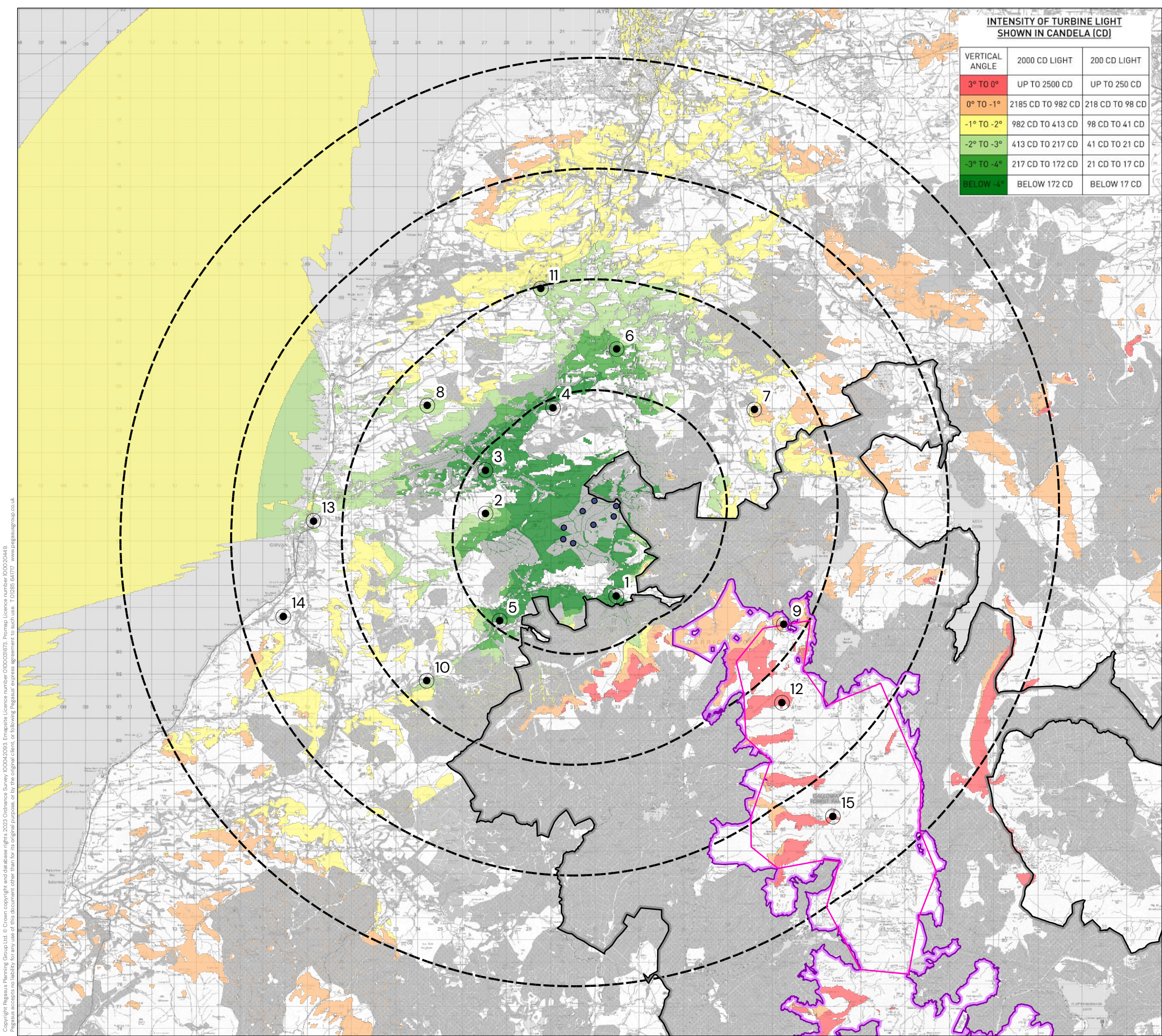




KEY

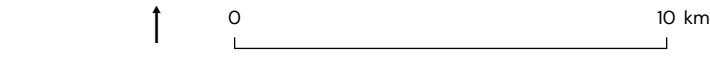
- Proposed Lit Wind Turbines
- Distance Radii from Turbines (5km, 10km, 15km, 20km)
- OS Local Woodland
- Viewpoint Location
- Merrick Wild Land Area
- Galloway Dark Skies Park – Core Area
- Galloway Dark Skies Park – Park Boundary

NOTES

- A reduced lighting scheme has been agreed with the Civil Aviation Authority (CAA) and it is proposed 8 of the 14 turbines will be lit (T01, T03, T05, T07, T08, T10, T12 and T13).
- The visible turbine lights "will be switched on between Evening Civil Twilight and Morning Civil Twilight. Approximately 11 hours per day averaged over the year."
- Civil Aviation Authority SARG Policy Statement (2017) states "If the horizontal meteorological visibility in all directions from every wind turbine generator in a group is more than 5 km, the intensity for the light positioned as close as practicable to the top of the fixed structure required to be fitted to any generator in the windfarm and displayed may be reduced to not less than 10% of the minimum peak intensity."
- The lighting intensity for each of the vertical angles shown in the above table has been provided by Contarnex (Light Bulb Manufacturer) and is based on optimal test conditions in a calibration chamber.
- The perception of theoretical candela intensity does not take account of atmospheric attenuation (reduction in brightness over distance).
- The ZTV has been produced using OS Terrain 50 height data and calculates the difference in vertical angle between the turbine lights and the study area.
- The ZTV represents a reasonable worst case and the theoretical lighting intensity illustrated may be the result of a single turbine within the group.
- Actual visibility is likely to be less than predicted due to a range of other factors which include the darkness adaptation of individual receptors and weather obscuration. Further technical information can be found in the updated Aviation Lighting Mitigation Report.

TURBINE LIGHTING INTENSITY ZTV

CRAIGINMODDIE WIND FARM



DATE	SCALE	TEAM	APPROVED
03/03/2023	1:175,000@A3	CS	DT

SHEET	REVISION
-	-

DRAWING NUMBER
P22-2271_EN_02 LZTV

