



**CLUNE WIND FARM  
EIA REPORT  
FIGURE 5.16  
Hub Lighting Intensity ZTV  
- Proposed Reduced Aviation  
Lighting Scheme**

**LVIA**

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- Proposed Turbine Location
- Site Boundary
- 5km Radii
- Viewpoint
- Night Time Viewpoint
- National Scenic Areas
- Cairngorms National Park

Intensity of Turbine Light shown in Candelas (cd)

Vertical Angle	Turbine Lighting Intensity	
	2000cd Scenario	200cd Scenario
0° to 2°	2200/2500cd	220/250cd
0° to -1°	2200cd to 980cd	220cd to 98cd
-1° to -2°	980cd to 420cd	98cd to 42cd
-2° to -3°	420cd to 220cd	42cd to 22cd
-3° to -4°	220cd to 170cd	22cd to 17cd
Below -4°	<170cd	<17cd



LAYOUT DWG: TBC T-LAYOUT NO: PSCOCLU041

DRAWING NUMBER  
**405.064807.00001.0070.0**

SCALE - 1:280,000@ A3

**ENVIRONMENTAL IMPACT ASSESSMENT  
REPORT 2025**

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**Viewpoints**

1. C1121 Road (near Glenkylachy Lodge)
2. U1116 Road (near Garbole)
3. Core Path LBS114 (by Insharn)
4. C1121 Road (near Kylachy House)
5. A9 (Slochd)
6. U1116 Road (near Carn Eitidh)
7. Tomatin
8. Carn Sleamhuinn
9. A9 (River Findhorn Crossing)
10. Track near Geal Charn Mor
11. Carn a' Choire Mhoir Summit
12. A9 (near Carrbridge)
13. A9 (north of Tomatin)
14. Carrbridge
15. Carn na h-Easgairn Summit
16. Carn an Fhreiceadain Summit
- 17a. Meall a Bhauchaille
- 17b. Craiggowrie
18. Achnahannet
19. Carn na Saobhaide Summit
20. Braes of Balnagowan, Nethy Bridge
21. A95 (near Dulnain Bridge)
22. Cairn Gorm Mountain Railway Cafe
23. Braeriach Summit
24. Creagan a Chaise
25. Meall Fuar Mhonaich

- Notes**
1. The lighting intensity for each of the vertical angles shown is derived from information provided by the Aviation Consultant for the Proposed Development, which in turn is based on data provided by CEL, a manufacturer of aviation warning lights.
  2. Reduced intensity turbine lighting (200cd) based on Air Navigation Order 2016 (CAP393) Article 223(8) which allows the 2000cd turbine light to be reduced to not less than 10% of the minimum peak intensity specified i.e. 200cd if visibility in all directions from every wind turbine generator in a group is more than 5km.
  3. Perception of theoretical candela intensity does not take account of distance.
  4. ZTV calculations do not take into account surface features such as forestry or buildings.
  5. ZTV calculations for turbine lighting intensity are based on visible aviation lighting mounted on the turbine nacelle.
  6. The ZTV calculates the degree of vertical angle from the study area shown to each of the Proposed Development turbines.
  7. ZTV calculations represent a worst case situation where predicted lighting intensity may be as a result of only one turbine in the layout.

Hub Height:	119m	Observer height:	2m
DTM:	OS T50 DTM	Surface features:	Excluded
DTM resolution:	50m	Earth curvature:	Included

