```
el_counter_wf  THM

⊢  ∀n:ℤ, L:ℤ*. ||n:L|| ∈ ℕ  by UnivCD
|
1. n : ℤ
2. L : ℤ*
⊢  ||n:L|| ∈ ℕ  by ListInd 2
|
|\
| ⊢  ||n:nil|| ∈ ℕ
|   by RecCaseSplit ‘el_counter‘ THEN Analyze 3 THEN Reduce 0
|
.\
. 3. u : ℤ
. 4. v : ℤ*
. 5. ||n:v|| ∈ ℕ
. ⊢  ||n:u.v|| ∈ ℕ
. | by RecCaseSplit ‘el_counter‘
. |    THEN
. |    Inst Thm* ∀a:A, as:A*. ||a.as|| = ||as||+1    {length_cons}
. |    [ℤ;u;v]
. |
. 6. ¬u.v = nil
. 7. n = hd((u.v))
. 8. ||u.v|| = ||v||+1
. ⊢  ||n:v|| ∈ ℤ  by Inclusion 5
END
```