```
compute_l_inv  THM

⊢  ∀Auto:Automata(Alph;St), x,y,z:Alph*.
|  (Result(Auto)x) = (Result(Auto)y) ⇒
|  (Result(Auto)z @ x) = (Result(Auto)z @ y)  by GenUnivCD
|
1. Alph : Type
2. St : Type
3. Auto : Automata(Alph;St)
4. x : Alph*
5. y : Alph*
6. z : Alph*
7. (Result(Auto)x) = (Result(Auto)y)
⊢  (Result(Auto)z @ x) = (Result(Auto)z @ y)  by ListInd 6
|
|\
| ⊢  (Result(Auto)nil @ x) = (Result(Auto)nil @ y)  by Reduce 0
|
.\
. 8. u : Alph
. 9. v : Alph*
. 10. (Result(Auto)v @ x) = (Result(Auto)v @ y)
. ⊢  (Result(Auto)(u.v) @ x) = (Result(Auto)(u.v) @ y)
. | by RecUnfold ‘compute_list‘ 0
. |
. ⊢  if null((u.v) @ x)→ InitialState(Auto)
. |  else δAuto((Result(Auto)tl(((u.v) @ x))),hd(((u.v) @ x))) fi
. |  =
. |  if null((u.v) @ y)→ InitialState(Auto)
. |  else δAuto((Result(Auto)tl(((u.v) @ y))),hd(((u.v) @ y))) fi
. | by Reduce 0
. |
. ⊢  δAuto((Result(Auto)v @ x),u) = δAuto((Result(Auto)v @ y),u)
.   by RWH (HypC 10) 0
END
```