

Inference at \*  
of proof for Lemma iff\_imp\_equal\_bool:

$\vdash \forall a, b : \mathbb{B}. ((\uparrow a) \iff (\uparrow b)) \Rightarrow (a = b)$   
by ((UnivCD)  
CollapseTHEN ((Auto\_aux (first\_nat 1:n) ((first\_nat 1:n),(first\_nat 3:n  
)) (first\_tok :t) inil\_term))).

1:

1.  $a : \mathbb{B}$
  2.  $b : \mathbb{B}$
  3.  $(\uparrow a) \iff (\uparrow b)$
- $\vdash a = b$

.