```
min_arg_iff  THM

⊢  ∀f:(ℕ→𝔹), n,k:ℕ.
|  f(n) = f(k) ⟺ MinArg(f : {0..n⁺}) = MinArg(f : {0..k⁺}) ∈ ℕ
| by UnivCD THEN Analyze 0 THEN Analyze 0
|
|\
| 1. f : ℕ→𝔹
| 2. n : ℕ
| 3. k : ℕ
| 4. f(n) = f(k)
| ⊢  MinArg(f : {0..n⁺}) = MinArg(f : {0..k⁺})
|   by BackThru
|      Thm* ∀f:(ℕ→𝔹), n,k:ℕ.
|           f(n) = f(k) ⇒
|           MinArg(f : {0..n⁺}) = MinArg(f : {0..k⁺}) ∈ ℕ
|      {min_arg_unique}
|
.\
. 1. f : ℕ→𝔹
. 2. n : ℕ
. 3. k : ℕ
. 4. MinArg(f : {0..n⁺}) = MinArg(f : {0..k⁺})
. ⊢  f(n) = f(k)  by ApFunToHypEquands ‘x’ (f(x)) 𝔹 4
. |
. 5. f(MinArg(f : {0..n⁺})) = f(MinArg(f : {0..k⁺}))
. ⊢
.   by RWH
.      (LemmaC
.       Thm* ∀f:(ℕ→𝔹), n:ℕ. f(MinArg(f : {0..n⁺})) = f(n)
.       {min_arg_sound})
.      5
END
```