
LIGHT UP
AKARI

TYPES

```
(:types
line column cell - objects
)
```

PREDICATES

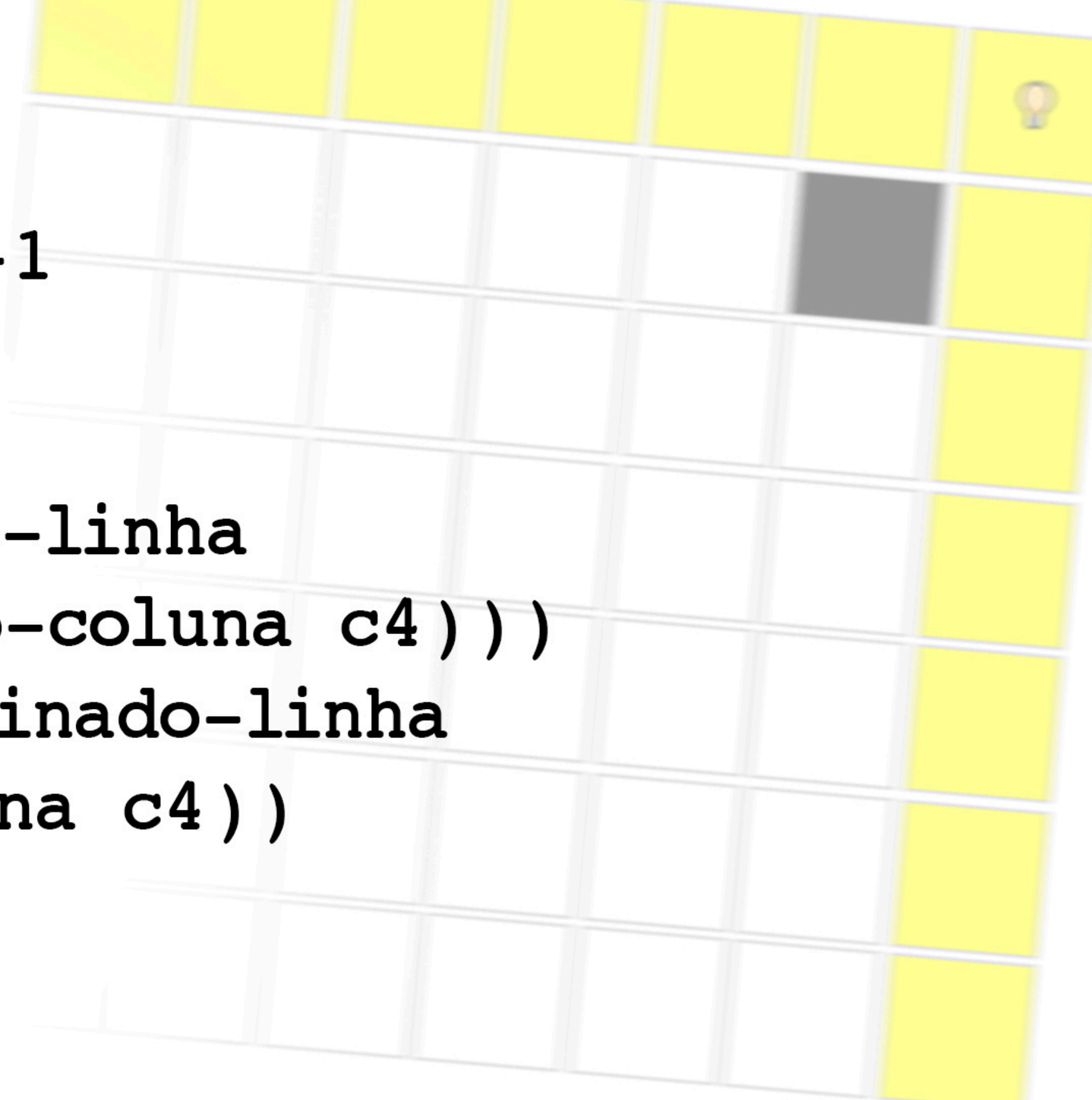
```
(:predicates
(iluminado-linha ?l - line)
(iluminado-coluna ?cl - column)
(count-zero ?c - cell)
(count-one ?c - cell)
(count-two ?c - cell)
(count-three ?c - cell)
(count-four ?c - cell)
)
```

MAPEAMENTO

L1 00 C1	L1 01 C3		L2 03 C7	L2 04 C8	L2 05 C9	L2 06 C12
L3 10 C1	1	L4 12 C6	L4 13 C7	L4 14 C8	3	L5 16 C12
L6 20 C1	L6 21 C4	L6 22 C6	L6 23 C7	L6 24 C8	L6 25 C10	
L7 30 C1	L7 31 C4	L7 32 C6	L7 33 C7	L7 34 C8	L7 35 C10	L7 36 C13
2	L8 41 C4	L8 42 C6	L8 43 C7	L8 44 C8	L8 45 C10	L8 46 C13
L9 50 C2	3	L10 52 C6	L10 53 C7	L10 54 C8	1	L11 56 C13
L12 60 C2	L12 61 C5	L12 62 C6	L12 63 C7	0	L13 65 C11	L13 66 C13

ACTIONS

```
(:action bulb-c-3-1
:parameters ()
:precondition
(and(not(iluminado-linha
l7))(not(iluminado-coluna c4)))
:effect (and (iluminado-linha
l7)(iluminado-coluna c4))
)
```

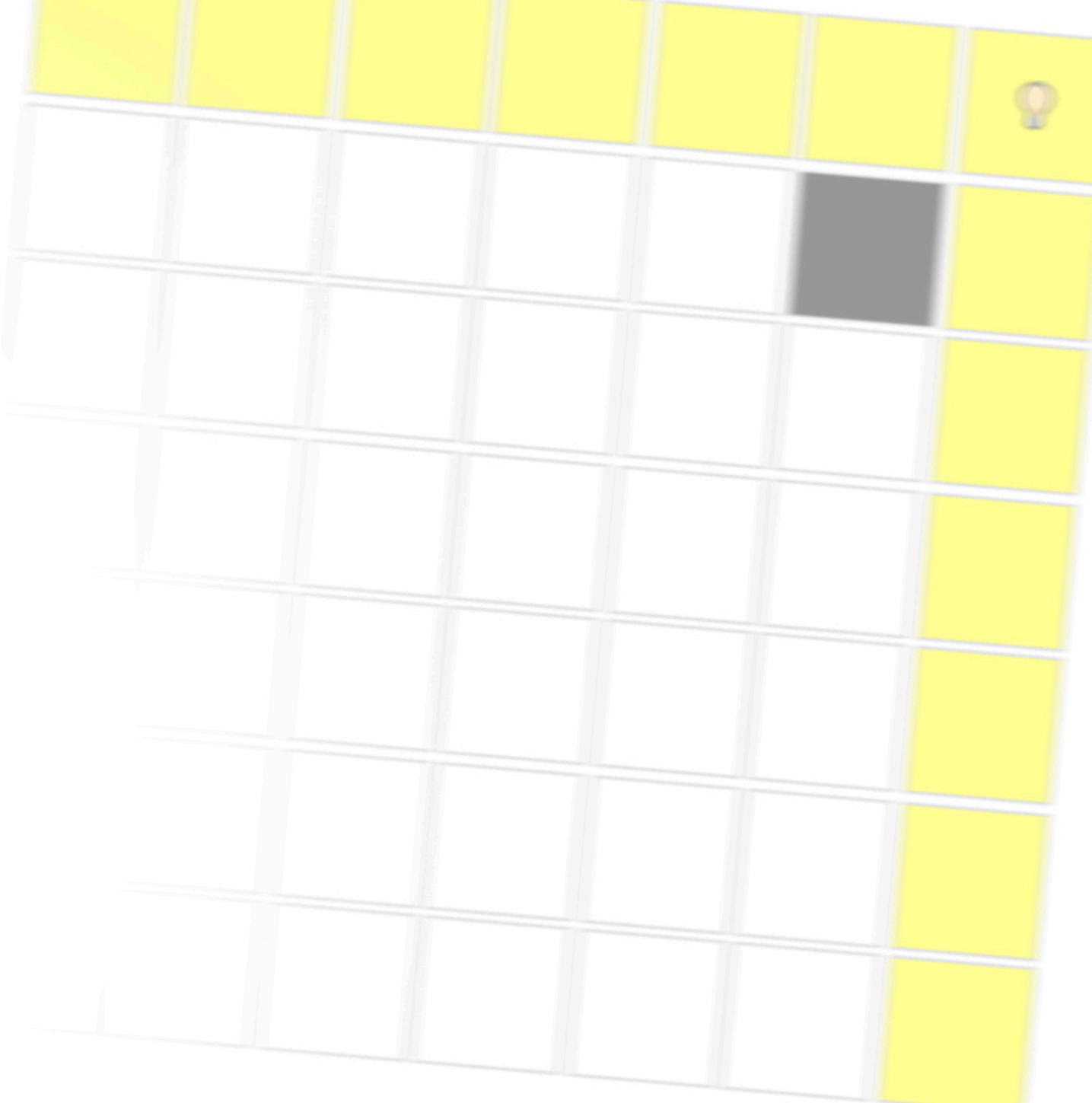


ACTIONS

```
(:action bulb-c-3-0
:parameters ()
:precondition (and(not(iluminado-linha l7))(not(iluminado-coluna
c1)))
:effect (and (iluminado-linha l7)(iluminado-coluna c1)
         (when (count-zero c-4-0)
                  (and
                  (not(count-zero c-4-0)) (count-one c-4-0)))
         (when (count-one c-4-0)
                  (and
                  (not(count-one c-4-0)) (count-two c-4-0)))
         (when (count-two c-4-0)
                  (and
                  (not(count-two c-4-0)) (count-three c-4-0)))
         (when (count-three c-4-0)
                  (and
                  (not(count-three c-4-0)) (count-four c-4-0)))
         )
)
```

INIT

```
 (:init
(count-zero c-1-1)
(count-zero c-1-5)
(count-zero c-4-0)
(count-zero c-5-1)
(count-zero c-5-5)
(count-zero c-6-4)
 )
```



GOAL

```
(:goal (and
  (or (iluminado-linha l1)
(iluminado-coluna c1))
(count-one c-1-1)

...
))
```

PLANNERS

AGL MADAGASCAR/M

SAT MADAGASCAR/M

OPT FAST DOWNWARD
SEQ-OPT-FDSS-2023

OBRIGADO!