Advanced Application

- Example 1: LCD Backlight
- Example 2: LED Source
- Example 3: Speedometer Pointer
- Example 4: Telescope
**Example 1: LCD Backlight**

- Create an LCD Panel

**Material:** Poylcarb

**Size:** 100x10x100(mm)

**Perfect mirror**
Example 1: LCD Backlight

- Creating the Fluorescent Bulb

Fluor White coating

r = 1mm
Example 1: LCD Backlight

- Creating the Reflector

surface property = diffuse white

r = 5mm
Example 1: LCD Backlight

- Creating a dot pattern

Diffuse White
Example 1: LCD Backlight

- Copy dot patterns
Example 1: LCD Backlight

- Copy dot patterns
Example 1: LCD Backlight

- Adding an observation plane

perfect absorbed
Example 1: LCD Backlight

- Do the Ray Trace
Example 1: LCD Backlight

- The ray is too much
Example 1: LCD Backlight

- Set Ray sorting
  - One percent of rays to be shown
Example 1: LCD Backlight

- Irradiance Map

![Irradiance Map and Options](image.png)
Example 2: LED Source

- Original design
Example 2: LED Source

- After Ray Tracing
Example 3: Speedometer Pointer

• Original design
Example 3: Speedometer Pointer

- After Ray Tracing
Example 4: Telescope

- Original design
Example 4: Telescope

- After Ray Tracing