

## THE LIGHTING DESIGN

The artwork "Desire", a 3D installation comprised of more than 1,300 lights, uses red warning lights as its major light source. The warning lights, lined up in a seemingly arbitrary order, display the designed image when viewed from a specific angle. Although the artwork is static, the red light emitted from the alternately flashing warning lights creates the dazzle of stardust that illuminates the night, strongly conveying the concept of coexistence between desire and danger as illustrated in the artwork. The order of the lights, determined by computer simulations, conveys emotional contents using a logical lighting design. The use of perceptual art allows the artwork to take the form of a pair of lips when viewed in the front while appearing as a heartbeat line when viewed from the sides. The lips symbolize desire; the heartbeat line signifies the emotions and feelings when one is faced with desires. When viewed from any other angle, the artwork appears as specks of stardust emitting red optical haze, drawing attention from the audience and triggering their desire to explore more.

## THE TECHNICAL PRINCIPLE

The artwork utilizes red warning lights as units. Through computer simulations, sequencing and calculation, 2D images were split into multi-layered structures. Composed of over 1,300 light nodes, these suspended structures create optical illusions in a 3D space, making it possible for the artwork to display two distinctive images when viewed in the front and from the sides. The sparkling light effects enable the audience to view an objectively static artwork as a moving image, eventually forming a dynamic 3D light installation. The structures that fix the lights are constructed with metal components that can be assembled and disassembled. The components can be easily transported and quickly used to assemble an onsite framework (length 6m x width 4m x height 4m). The upper and lower layers of the framework are made with metal mesh where the light nodes are fixed. And the location and height of each and every light node are calculated by computer simulations. The light nodes are fixated in place using high-strength wire rods. All of the components including wire rods are black in color so as to minimize visual impact on the artwork.

