The three-year renovation of James Turrell’s beloved skyspace at MoMA PS1 might have tried even the patience of the Quakers who inspired it.

Now the installation is again going on view — but not exactly as visitors may remember it.

“Meeting” (1980-86), inside a former classroom, nods to the classic, square-shaped Quaker meeting house, but with part of its ceiling cut open as an oculus to the sky. Seats of plywood have been replaced with durable teak panels; the oculus’s rooftop cover can now respond more quickly to bad weather; and, in a radical change, the static yellow tungsten lights that illuminated the walls are now dynamic, multicolored LED auras reminiscent of Mr. Turrell’s more recent work.
The newly renovated room opens to the public on Saturday at noon, and the first in a series of sunset programs, in which LED lights, now controlled by a computer, gradually brighten to contrast with the darkening sky, will begin around 6:30 that evening. (The artist has created a new program of modulating colors.) After about an hour, the oculus appears not as a window to the outside, but as an Ellsworth Kelly-esque black square on the ceiling.

Peter Eleey, the curator of PS1, described the experience as almost hallucinatory. “I’m taken out of my body,” he said. “I find myself more physically aware of my eyes as a receptor.” The visitor observes two phenomena, he added, one artificial and one natural, “and we’re caught in the middle.”

There are 20 after-hours sunset programs scheduled through Nov. 5. (The room accommodates 30 to 35 people at a time, and free tickets for the sunset program are available Friday, starting at noon, on the museum’s website, momaps1.org. From Nov. 6 into the spring, the program will run during museum hours.) But is the installation a new work of art? That question took MoMA PS1 about two years to answer, Mr. Eleey said. At issue was whether the updates were substantial enough to change the very nature of the piece.

In an interview, Mr. Turrell said that the “Meeting” of today was closer to his intention. With the renovations, he added, “the piece has gone on and become more than it was, and it is exactly what it was.”

Mr. Eleey said: “The renovation improved upon certain aspects of the infrastructure, the benches you sit on, the light fixtures — and also allowed James to refine aspects of the aesthetic experience. But it is not a new work. For James, the work consists of our encounter with the open sky, in this particular place.”

MoMA PS1 and Mr. Turrell have extended the work’s date to “1980-86/2016.” And now the piece is in MoMA’s permanent collection, a gift from the collectors Mark and Lauren Booth. The Booths also financed the renovation, the latest in a long history of repairs that “Meeting” has needed since its creation.

The first complication began as Mr. Turrell started to install the piece. Alanna Heiss, the museum’s founder, invited him to create the skyspace in a third-floor classroom in the late 1970s. She told him the ceiling was about six inches thick. It turned out to be 42 inches.

It took years, and a lot of Mr. Turrell’s money, to finish. He made the roof himself. Occasionally, he would sleep under the open roof in a tent. In the end, he said, he had made “this perfect space with the perfect sky” amid what was then the grit of Long Island City, Queens.

There was a drain in the center of the floor, which was necessary during the piece’s early years because the oculus’s steel could be operated only by hand on the roof, and rain often made its way inside. In the late 1990s, the drain was covered by a layer of concrete, which led to a reduction in the seat height of the benches. In the latest renovation, they have been restored to their earlier height — and, more important to the artist, his original plans.

Mr. Turrell said that “Meeting” was a turning point in both his career and the history of PS1. Klaus Biesenbach, the museum’s director, said that the piece begot a wave of skyspaces, has become “more and more revered” over time and continues to influence artists.

“It is still a very radical statement,” Mr. Biesenbach said. “It shocks you.”