Light: The Fundamental Expression

Abstract
This paper is in support of two years of artistic research concerning ideas about light as the ultimate medium for sculptural expression. Specifically, this paper makes a case for light as the ultimate expression of movement, space, time, and the notion of infinity. Curiosity is a human condition. We make observations about our environment, embark on scientific and artistic explorations, and attempt to formulate...
It is expressed by the luminous flux leaving the source in that direction per unit of solid angle. The SI unit of luminous intensity is the candela (cd). The human eye is only capable of viewing light in the visible spectrum and has a different sensitivity to light of different wavelengths. When there are photopic conditions, the eye is sensitive to light of wavelength 555 nm. Luminous flux. It expresses the amount of light that passes through a specific area, and it appears within a certain solid angle. The SI unit for luminance is candela per square metre (cd/m²). A number of units have been used for luminance, apart from the candela per square metre. One candela per square metre is equal to, $\frac{1}{\pi} \text{apostilbs}$, $\frac{1}{\pi} \times 10^{-4} \text{lamberts}$, 0.292 foot-lamberts.

and answer questions. Of the senses that we have, vision is the most pronounced, and is prominent in the way that we make these observations. The paper takes this a step further to show how light is fundamental to the human visual experience, and is the foundation for information that we gather about our environment. The writings go on to discuss man’s fascination with light and movement in the environment, and how artists and scientists have explored light as a material, a medium, a signifier of time, and an indicator of space. The paper examines how parallel discoveries in science and fine art have informed the advancement of technologies used to explore and articulate light, leading to increasingly minimalistic examples of kinetic light-based artistic expressions. Examples are presented showing the evolution of kinetic art and its convergence with light-based explorations. In tandem with technological advances, this convergence and evolution has resulted in an ultimate expression of space, time, and movement to date, the LASER. The paper concludes by discussing the evolution of my own work throughout the course of the program. I outline my transformation as an artist, moving from the creation of tangible artifacts to the creation of light-based installations, and my own explorations with various types of light technologies to articulate movement, space, time and the notion of infinity.