

Lighting Research Finds Morning Light Lowers Stress at Work

Buildings (07/20/17)

A new study from the Lighting Research Center (LRC) at Rensselaer Polytechnic Institute found that office employees who receive a big dose of circadian-effective light in the morning -- from either electric lighting or daylight -- experience better sleep and lower levels of depression and stress than those who spend their early work hours in dim or low light levels. Led by Dr. Mariana Figueiro, director of the LRC's Light and Health program, the LRC research team investigated the connection between circadian stimulus (CS) and sleep, depression, and stress in office-based workers. "Our study shows that exposure to high CS during the day, particularly in the morning, is associated with better overall sleep quality and mood scores than exposure to low CS," Figueiro commented. "The present results are a first step toward promoting the adoption of new, more meaningful metrics for field research, providing new ways to measure and quantify circadian-effective light."

Participants who received high amounts of morning light reported lower levels of stress than those receiving low light. This finding was consistent during both winter and summer. GSA's Bryan Steverson remarks, "The data from this research will help support our efforts in developing new lighting practices that can optimize health benefits for federal employees working in our federal buildings." The study cited is the first research to measure personal circadian light exposure in office workers using a device calibrated to measure circadian-effective light. In addition, it is the first to directly relate circadian-effective light measures to mood, stress, and sleep outcomes.