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*The Effects Of Light Pollution On Observational Astronomy*

Light pollution is a problem for amateur and professional astronomers. A common thought is that the amount of light present is the sole factor of light pollution. However, both the amount of light present and the type of light fixture create light pollution. This project was designed to explore what types of light fixtures create the greatest amount of light pollution for an observational astronomer. A variety of lighting fixtures were available in a convenient setting, so different locations within this setting were used for testing. The effect of the light emitted from the different fixtures was tested by counting the number of stars that could be seen with the naked eye within a certain field of view. The field of view was created by using a card-stock frame and holding the frame at arms length. Each night that there was an opportunity to experiment, three constant stars Betelgeuse, Polaris, and Schedar were centered in the frame. The light fixture on a back porch was used as a control on nights that did not support travel. As predicted, the number of stars able to be seen in the field of view decreased in the presence of light, and the presence of light was greater or lesser depending on the different types of lighting fixtures. Globe fixtures were noted to be a major source of light pollution in this setting, because the light is not focused downward. The volume of any lighting fixture was also a problem.