

## **Abstract**

SocialLite is a communal lighting system designed for those who live without access to a clean, safe source of light. The system is delivered to rural communities and assembled locally by the communities themselves. The lanterns make use of local materials for housing, and the circuit is comprised of common, inexpensive parts. A centralized solar charging station spreads the cost of energy generation so that light is affordable. Testing methods were developed to evaluate the SocialLite lantern circuit and produce an improved design that is easier to assemble and modify, so that it can be brought to more communities and adapted to their resources and needs.