NATIVUS

American-Made Solar Prize

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AMERICAN MADE SOLAR PRIZE

U.S. DEPARTMENT OF ENERGY

Technical Assistance Request

HALO: Hyperbolic Astral-Light Optic

Record Breaking Concentrated Solar Power

Hyperbolic, Aerodynamic, Dual-Axis, High-Temperature Light Trap, HALO

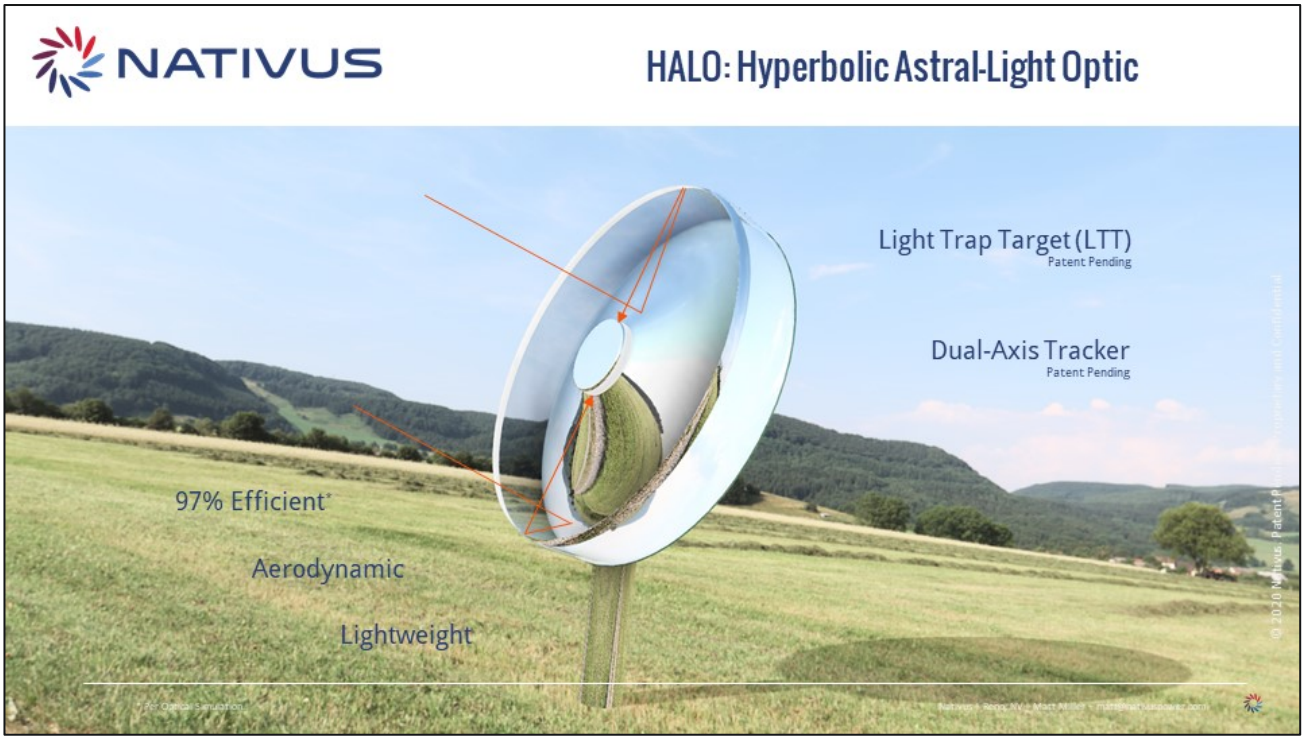

Figure 1. HALO – Hyperbolic Astral-Light Optic; Dual Reflector, Dual-Axis Tracker and Light Trap Target (LTT)

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Nativus is seeking to partner with NREL through a development agreement (TBD). Nativus requests the following assistance:

NREL

- Fundamental optical system evaluation guidance
- Review of Finite Element Analysis model of novel metal stretching technique, and geometric and equation level calculations of theoretical limits of accuracy and route planning
- General technical expertise and guidance related to optical engineering for optics and mechanical engineering for dual-axis tracker system.
- Innovation & Entrepreneurship Center (IEC) – Connecting technology with outside investment
- Link to thermal fluid test loop for performance evaluation
- Access to SolTrace so that we can compare lab-generated efficiency results to in-house results

Private Facility

- Fabrication and metrology
- Mechanical engineering for two axis tracker system

American-Made Network

- Supply Chain and domestic manufacturability assessment
- Team building and introductions to potential new hires
- Deployment and Project Assistance

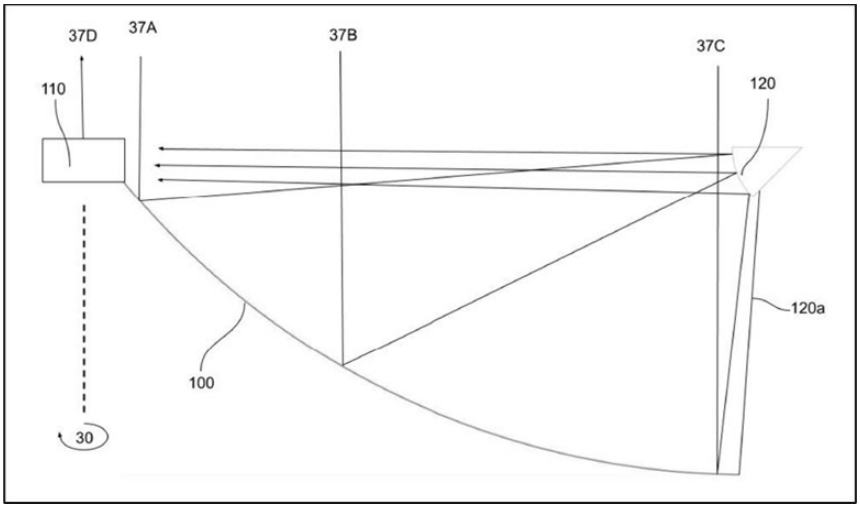

Figure 2. Light ray trace of our hyperbolic collector. Items 100 and 120 designate the primary and secondary reflectors, while item 110 designates the light-trap target.

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