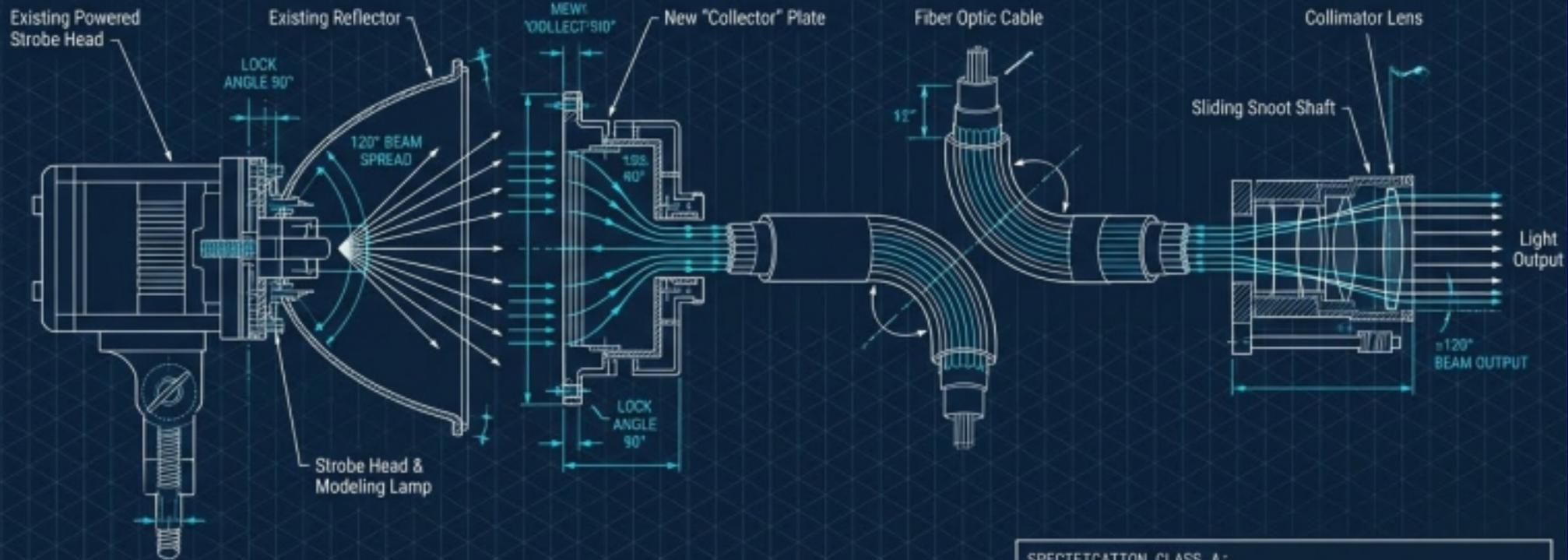


OPTI-STROBE: MODULAR FIBER OPTIC INTERFACE

SYSTEM ARCHITECTURE: SOURCE > INTERFACE > TRANSMISSION > OUTPUT



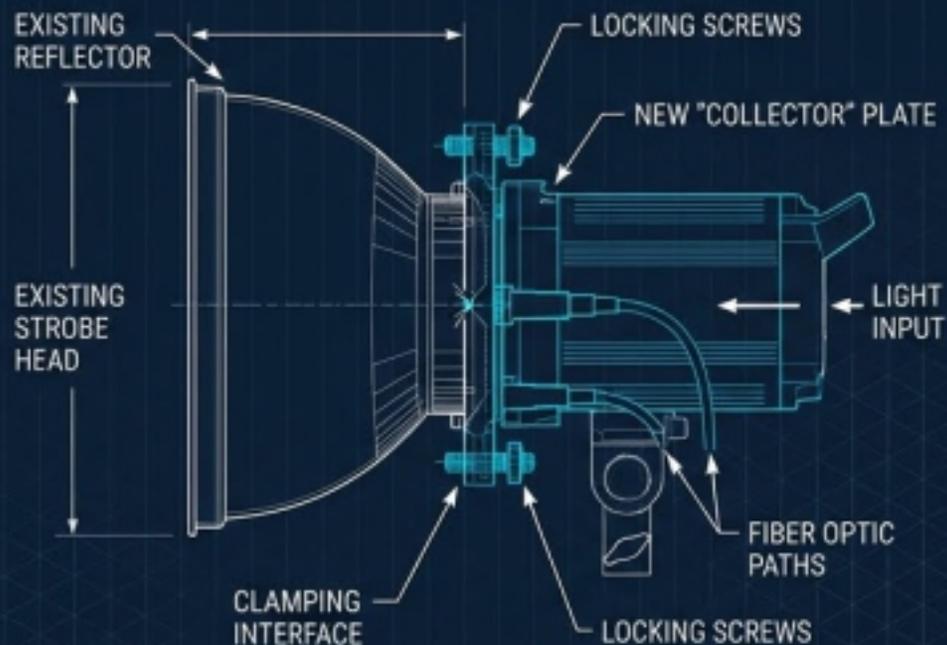
SPECIFICATION CLASS A:

- // INTERFACE: Standard 7-Inch Reflector Retrofit
- // TRANSMISSION: < 1% Light Loss per Meter
- // THERMAL PROFILE: Cold Light Output (0% Heat Transfer)
- // POWER SOURCE: Universal Strobe Head Compatibility

info@domistat.com



THE RETROFIT PARADIGM: MECHANICAL COUPLING



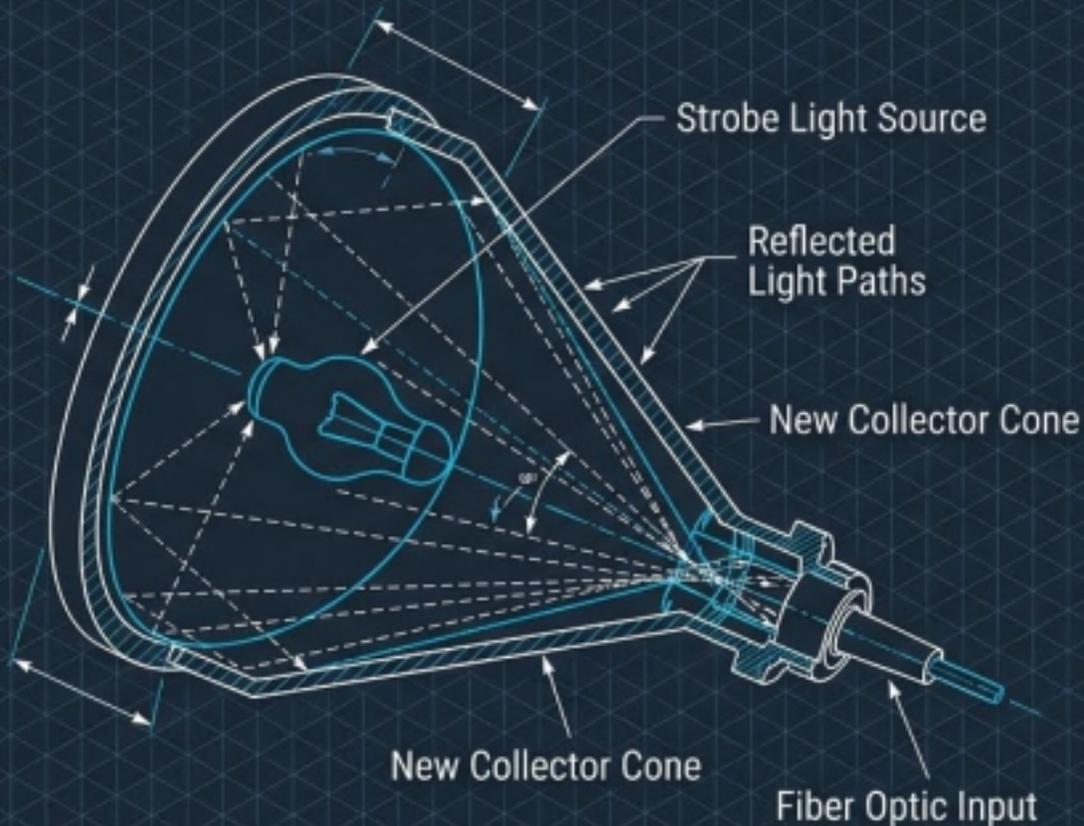
UNIVERSAL INTERFACE: Locks into standard 7-inch reflectors via reinforced mechanical coupling.

CONNECTOR TYPE: Tension-screw locking mechanism secures Collector Plate to Strobe Head.

ENERGY TRANSFER: Single source drives multiple outputs without electrical hardwiring.



OPTICAL CAPTURE: THE PHYSICS OF COLLECTION



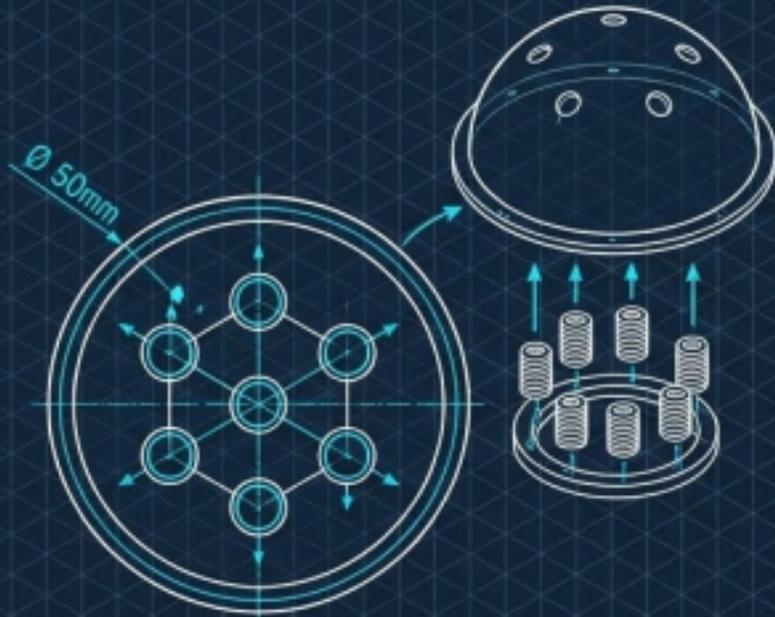
THE CHALLENGE: Intercepting 360-degree arc dispersion.

THE SOLUTION: Internal collector cone positioned at the arc focal point.

EFFICIENCY: Optimized angular collection maximizes photon density at the input interface.

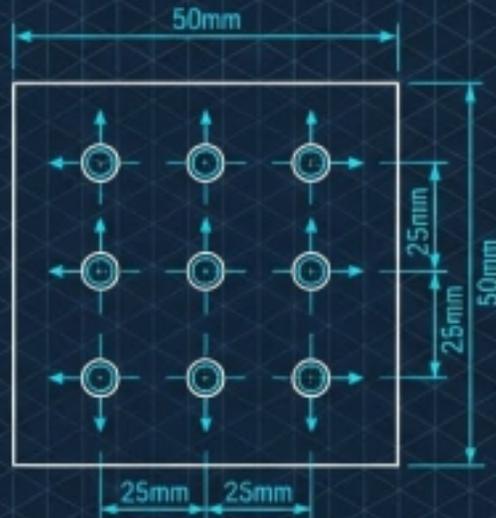


COLLECTOR GEOMETRY & PORT CONFIGURATION



Spherical Collector

7x Output
Ø 2mm Ports
Quartz Optic Material



Flat Panel Collector

9x Output
Ø 1.5mm Ports
High-Grade Polymer



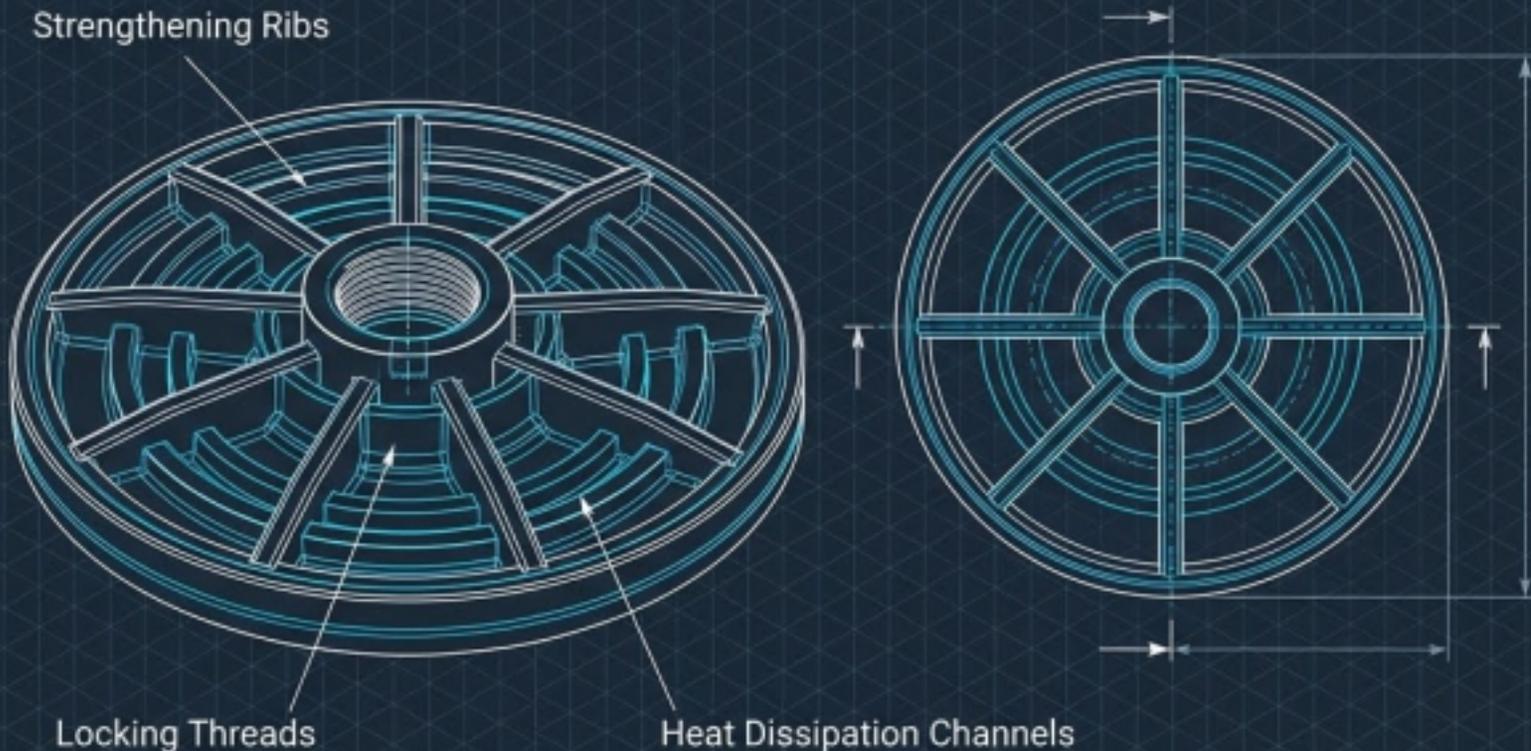
Parabolic Collector

5x Clustered Output
Ø 3mm Bundle
Aluminum Housing

Key Spec: Focal Length = 30mm (Optimized for standard flash tubes).



STRUCTURAL INTEGRITY & THERMAL MANAGEMENT



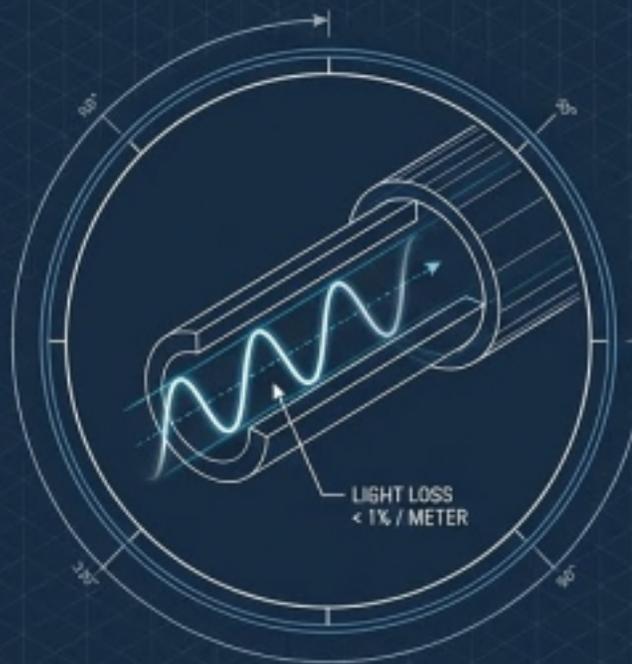
WEIGHT DISTRIBUTION:
Radial ribs prevent deformation under load from multiple fiber probes.

THERMAL EXPANSION:
Reinforced base withstands high-heat cycles from modeling lamps without warping optical alignment.

INTERFACE:
Precision-machined locking threads for secure fiber insertion.

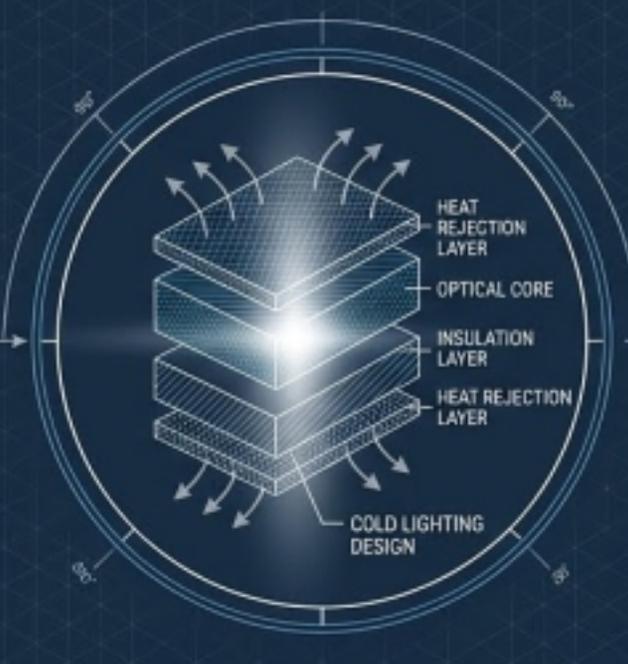


TRANSMISSION PHYSICS: THE COLD LIGHT CORE



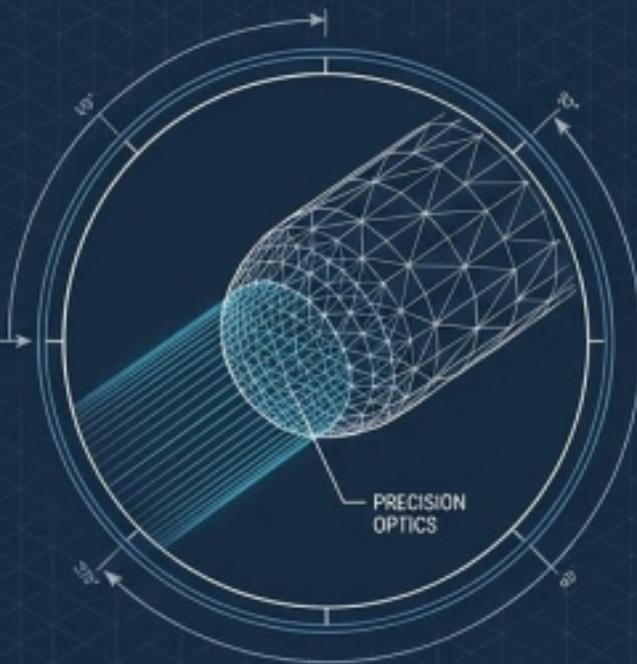
1. HIGH TRANSMISSION CORE:

Total Internal Reflection (TIR) achieves >99% efficiency.



2. COLD LIGHTING FILTRATION:

Specialized layering filters Infrared Radiation. Visible Light > 99% / Heat Transmission < 1%.

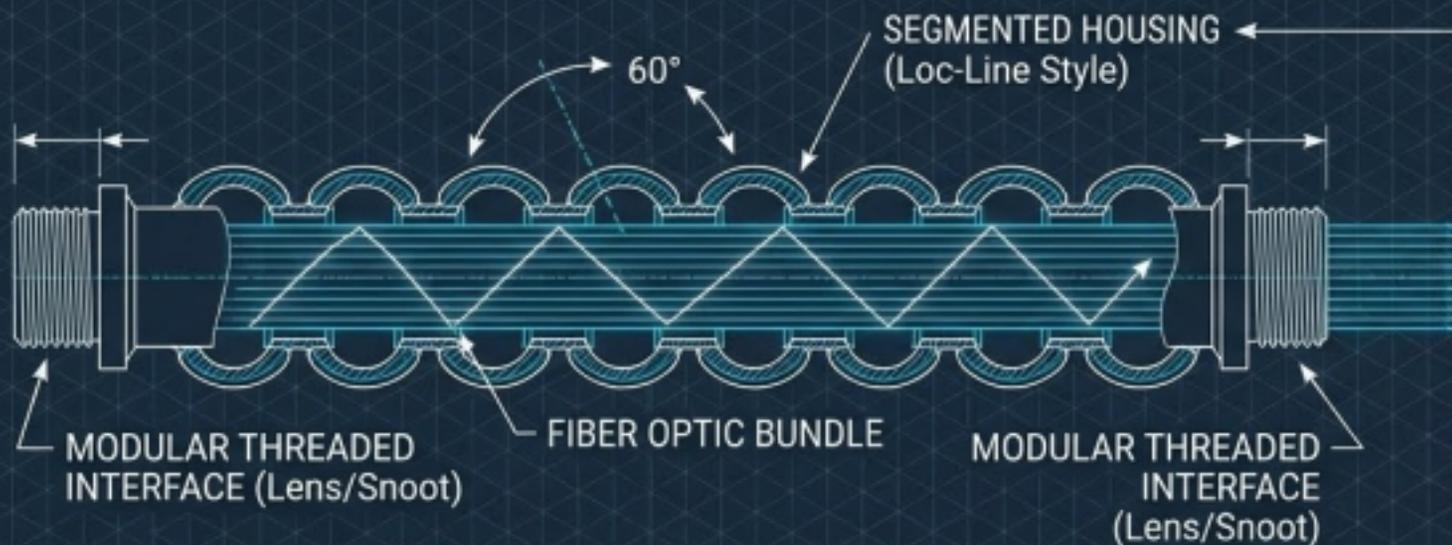


3. PRECISION TERMINUS:

Micro-polished output ensures consistent beam density.



SEGMENTED HOUSING & ARTICULATION



DESIGN: "GorillaPod" style segmented housing provides rigid positioning.

FUNCTION: Mechanical sheath decouples physical stress from the internal fiber optic bundle.

MODULARITY: Threaded attachment points allow for modular swapping of snoots and lenses.

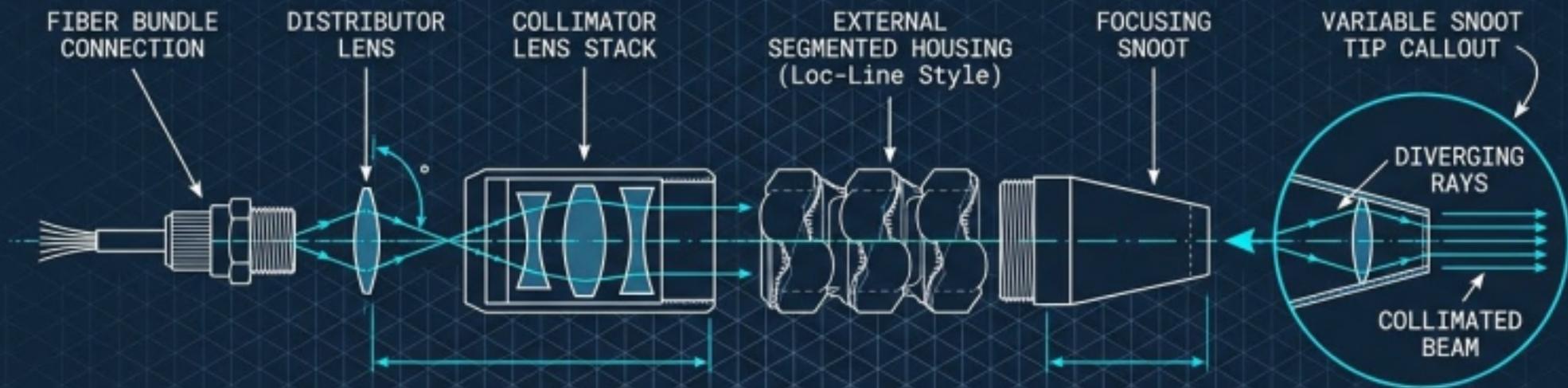
0.5 METER

1 METER

2 METER



THE COLLIMATOR: BEAM SHAPING & REFRACTION



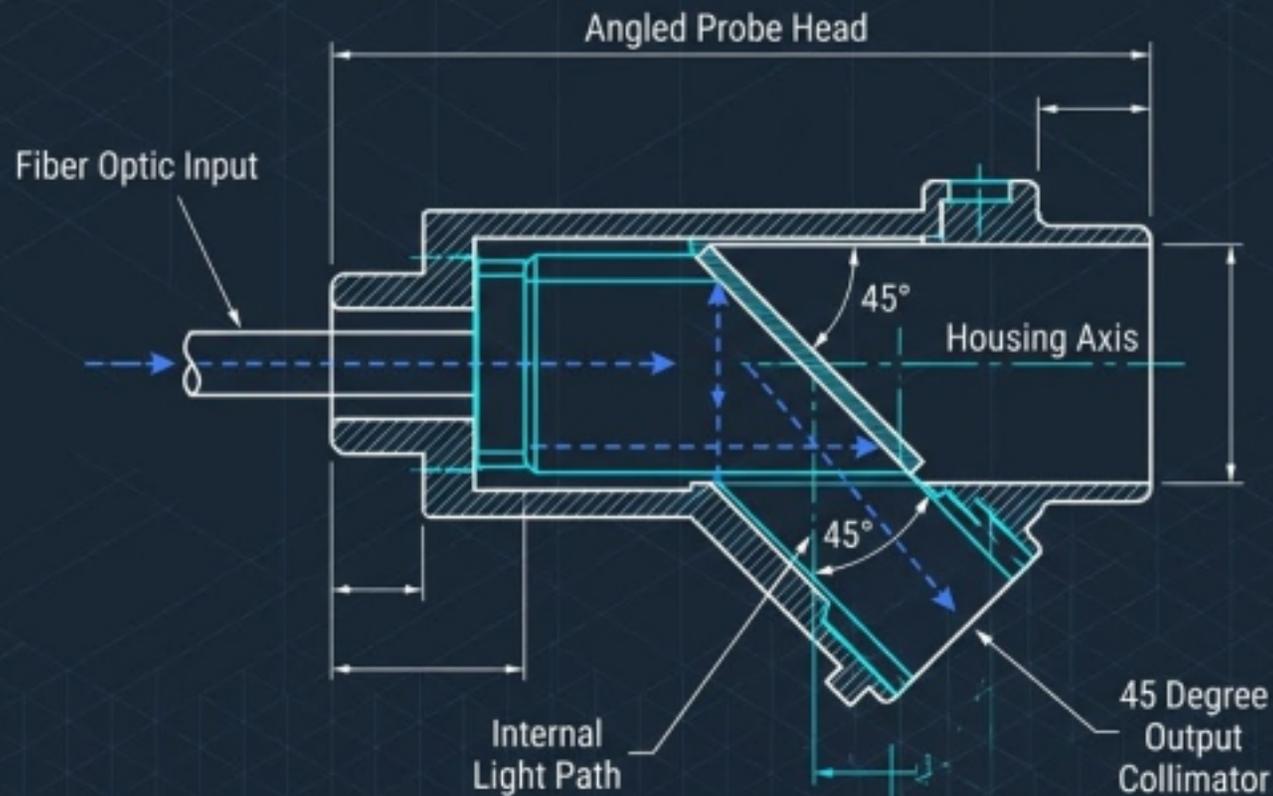
DISTRIBUTOR LENS:
Corrects the exit angle of the fiber terminus.

COLLIMATION: Stacked lens array refracts diverging rays into parallel beams.

VARIABLE SNOOT:
Sliding mechanical shaft physically narrows beam angle to control spill.

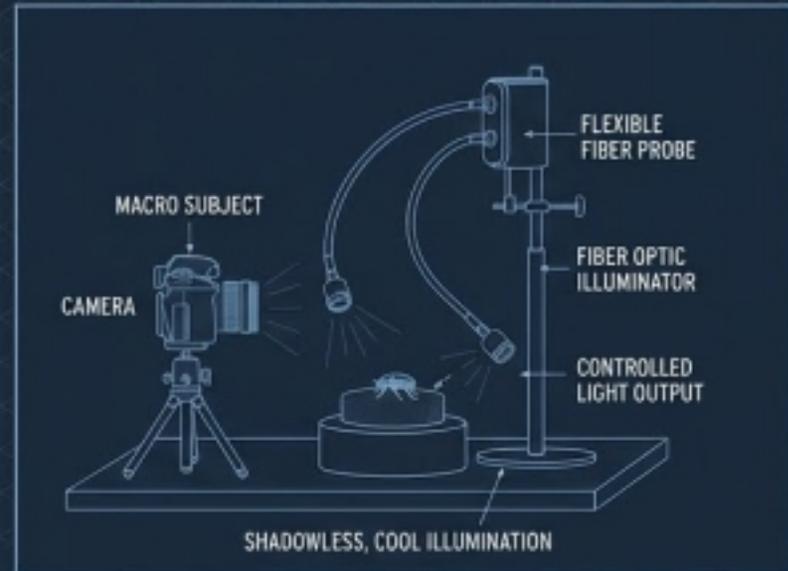
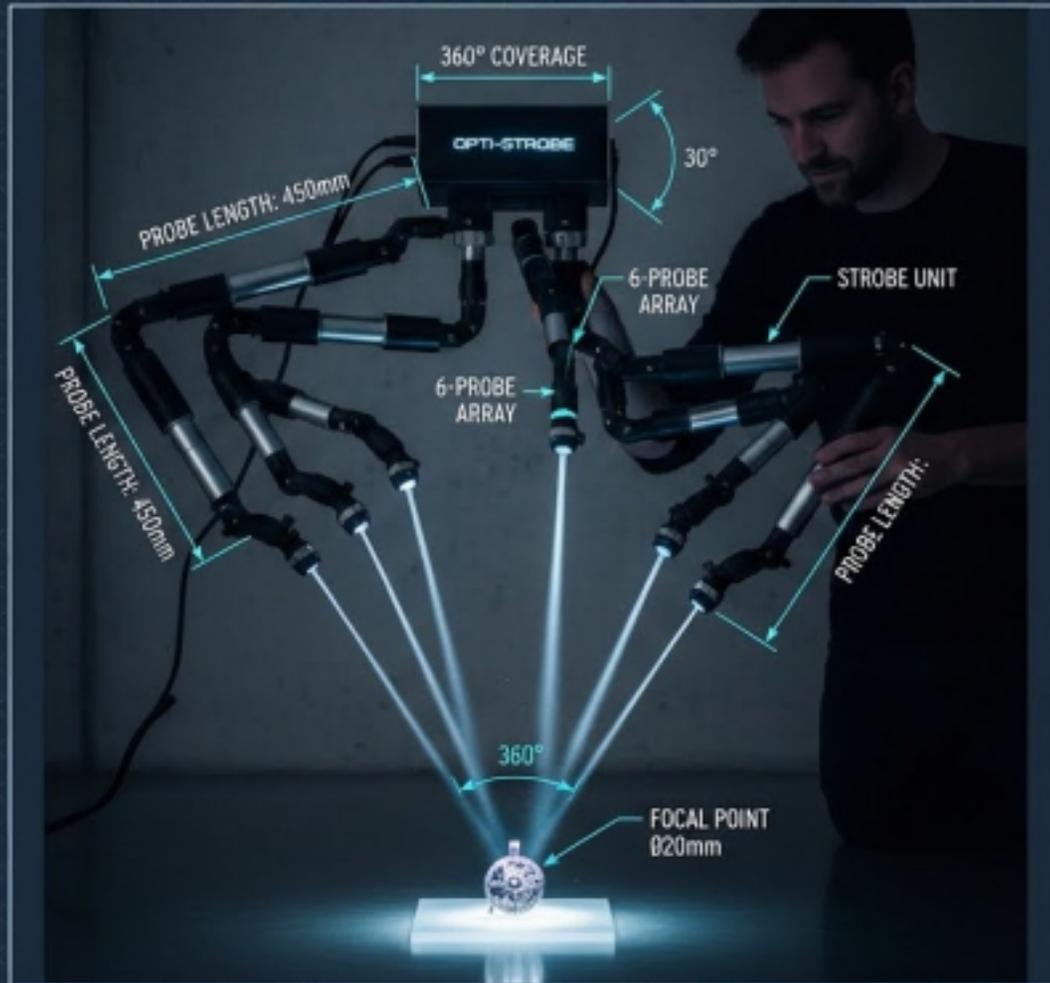


SPECIALTY OPTICS: THE 45-DEGREE INTERNAL PATH



- **THE PROBLEM:** Standard straight probes obstruct the camera lens in macro photography.
- **THE INNOVATION:** Rigid connector housing with internal prism assembly.
- **PHYSICS:** Lossless internal reflection alters light path 45 degrees.
- **RESULT:** Illumination axis perpendicular to housing axis.





VALIDATION: COMPLEX MULTI-POINT ARRAYS

CONFIGURATION: 6-probe array driven by single strobe source.

INVERSE SQUARE LAW: Proximity to subject maximizes intensity while minimizing power draw.

SHADOW CONTROL: Multi-point collimation eliminates unwanted shadows on microscopic details.



THE OUTPUT: PRECISION COLD ILLUMINATION

WAVELENGTHS:

635nm, 450nm, 532nm

635nm, 450nm, 532nm

BEAM DIVERGENCE:

<1mrad

OPERATIONAL RESULT:

SUBJECT SAFETY:

Zero heat transfer protects delicate subjects (organic matter, electronics).

BEAM INTEGRITY:

Consistent color temperature maintained from Source to Output.

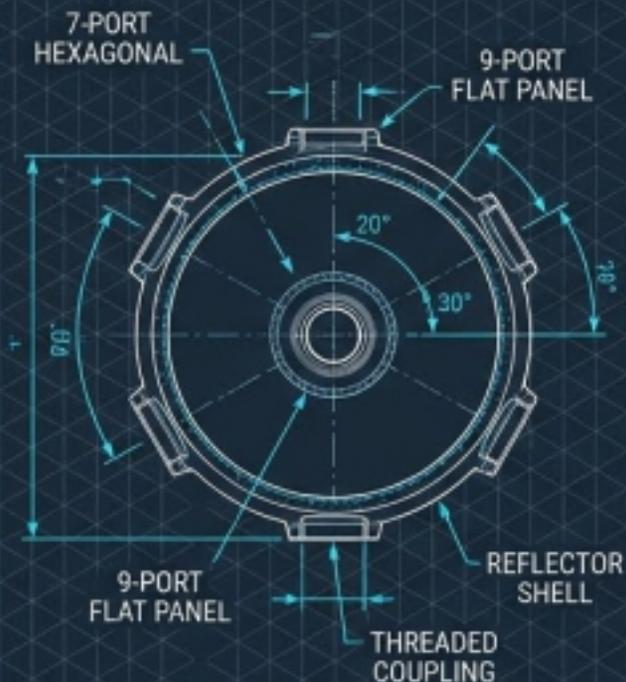
OPERATIONAL RESULT:

Studio-grade lighting architecture condensed into a microscopic workflow.



OPTI-STROBE TECHNICAL SPECIFICATION SUMMARY

Reflector Base



- **INPUT:** Retrofit Strobe Reflector (Spherical / Parabolic)
- **COUPLING:** 7-Port Hexagonal or 9-Port Flat Panel
- **TRANSMISSION:** Low-loss Fiber Optic Bundle (>99% Transmission)
- **THERMAL:** IR-Filtered Cold Light Output
- **SHAPING:** Modular Collimator Lens & Sliding Snoot
- **USAGE:** Macro, Product, and Scientific Photography

Arm/Snoot

