

**Spectral AI, Inc.**  
**2515 McKinney Avenue, Suite 1000**  
**Dallas, Texas 75201**

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October 29, 2024

**VIA EDGAR**

United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Washington, DC 20549

**Re:     Spectral AI, Inc.**  
**Registration Statement on Form S-3 (File No. 333-282681)**

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933 and on behalf of Spectral AI, Inc. (the “Company”), the undersigned hereby requests that the Company’s Registration Statement on Form S-3 (File No. 333-282681) filed with the U.S. Securities and Exchange Commission on October 16, 2024 (the “Registration Statement”), be accelerated so that the Registration Statement will become effective on October 31, 2024, at 5:30 p.m., Eastern Standard Time, or as soon as practicable thereafter.

Please contact Herbert F. Kozlov ([hkozlov@reedsmith.com](mailto:hkozlov@reedsmith.com) / telephone: (212) 549-0241) of Reed Smith LLP with any questions and please notify when this request for acceleration has been granted.

Very truly yours,

SPECTRAL AI, INC.

By: /s/ Vincent S. Capone  
Vincent S. Capone  
Chief Financial Officer and General Counsel

cc:  
Herbert F. Kozlov, Esq., Reed Smith LLP  
Lynwood E. Reinhardt, Esq., Reed Smith LLP