



OMB APPROVAL	
OMB Number:	3235-0056
Expires:	October 31, 2005
Estimated average burden hours per response.....	3.0

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 8-A**

**FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES  
PURSUANT TO SECTION 12(b) OR (g) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

**Electro-Optical Sciences, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State of incorporation or organization)

**13-3986004**  
(I.R.S. Employer Identification No.)

**3 West Main Street, Suite 201  
Irvington, New York**  
(Address of principal executive offices)

**10533**  
(Zip Code)

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act registration statement file number to which this form relates: **333-125517**

Securities to be registered pursuant to Section 12(b) of the Act:

**Title of each class  
to be so registered**

---

**None**

**Name of each exchange on which  
each class is to be registered**

---

**None**

Securities to be registered pursuant to Section 12(g) of the Act:

**Common Stock, par value \$0.001 per share**  
(Title of class)

## INFORMATION REQUIRED IN REGISTRATION STATEMENT

### Item 1. Description of Registrant's Securities to be Registered.

A description of the common stock, par value \$0.001 per share (the "Common Stock") of Electro-Optical Sciences, Inc. (the "Registrant") will be contained in a prospectus, constituting part of the Registrant's Registration Statement, as amended, on Form S-1 (File No. 333-125517) (the "Form S-1"), to be filed pursuant to Rule 424(b) under the Securities Act of 1933, as amended (such prospectus as filed pursuant to 424(b), the "Prospectus"). The description of the Registrant's Common Stock and the provisions of the Registrant's fourth amended and restated certificate of incorporation and third amended and restated bylaws contained in the Prospectus under the heading "Description of Capital Stock" is hereby incorporated by reference into this Form 8-A.

### Item 2. Exhibits.

The following exhibits are incorporated herein by reference:

<u>Exhibit</u>	<u>Description</u>
3.1	Registrant's Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Form S-1, as amended).
3.2	Registrant's Form of Fourth Amended and Restated Certificate of Incorporation (to be effective upon the closing of the offering covered by form S-1) (incorporated by reference to Exhibit 3.2 of the Form S-1, as amended).
3.3	Registrant's Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.3 of the Form S-1).
3.4	Registrant's Form of Third Amended and Restated Bylaws (to be effective upon the closing of the offering covered by form S-1) (incorporated by reference to Exhibit 3.4 of the Form S-1).
4.1	Form of Specimen Certificate for Registrant's common stock (incorporated by reference to Exhibit 4.1 of the Form S-1, as amended).
4.2	Second Amended and Restated Investors' Rights Agreement, dated October 26, 2004 (incorporated by reference to Exhibit 4.2 of the Form S-1, as amended).

### SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Dated: August 8, 2005

ELECTRO-OPTICAL SCIENCES, INC.

/s/ KAREN KRUMEICH

By: Karen Krumeich,  
Chief Financial Officer

### Index to Exhibits

Exhibit	Description	Incorporated by Reference		
		Form	Date	Number
3.1	Registrant's Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Form S-1).	S-1	June 3, 2005	3.1
3.2	Registrant's Form of Amended and Restated Certificate of Incorporation (to be effective upon the closing of the offering covered by form S-1) (incorporated by reference to Exhibit 3.2 of the Form S-1).	S-1/A	July 15, 2005	3.2
3.3	Registrant's Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.3 of the Form S-1).	S-1	June 3, 2005	3.3
3.4	Registrant's Form of Amended and Restated Bylaws (to be effective upon the closing of the offering covered by form S-1)(incorporated by reference to Exhibit 3.4 of the Form S-1).	S-1/A	August 8, 2005	3.4
4.1	Form of Specimen Certificate for Registrant's common stock (incorporated by reference to Exhibit 4.01 of the Form S-1).	S-1/A	August 8, 2005	4.1
4.2	Second Amended and Restated Investors' Rights Agreement, dated October 26, 2004 (incorporated by reference to Exhibit 4.2 of the Form S-1).	S-1	June 3, 2005	4.2