

CALDERONI ROBERT
Form 4/A
March 29, 2011

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
CALDERONI ROBERT

2. Issuer Name and Ticker or Trading Symbol
KLA TENCOR CORP [KLAC]

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)

(Last) (First) (Middle)
C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE
(Street)

3. Date of Earliest Transaction (Month/Day/Year)
11/03/2010

Director 10% Owner
 Officer (give title below) Other (specify below)

MILPITAS, CA 95035

4. If Amendment, Date Original Filed(Month/Day/Year)
11/03/2010

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) | |
|---|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|---|
| | | | | (A) or (D) | Price | | | |
| | | | | Code | V | Amount | | |
| Common Stock - Restricted Stock Units (1) | 11/03/2010 | | A | 2,772 (2) | A | \$ 0 | 5,920 | D |
| Common Stock | | | | | | | 8,417.627 (3) | D |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form

SEC 1474 (9-02)

