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

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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 or Section 30(h) of the Investment Company Act of 1940

| (Print or Ty | pe Response | s) | | | | | | | | | | • | | | | |
|--|---|--|---|--|------------|--|--------------------|--------------------------|----------------------------|-------------------------------------|--|---|--|--|---|---|
| 1. Name and Address of Reporting Person * Kirloskar Virendra A | | | | 2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC] | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)Director10% Owner | | | | | |
| (Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE | | | | 3. Date of Earliest Transaction (Month/Day/Year) 08/03/2017 | | | | | | | X Officer (give title below) Other (specify below) SVP & Chief Accounting Officer | | | | | |
| (Street) | | | | 4. If Amendment, Date Original Filed(Month/Day/Year) | | | | | | | 6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| | AS, CA 95 | | | | | | | | | | | | | | | |
| (City |) | (State) | (Zip) | | Ta | able I | - Non | -Deriv | ative S | Securities | Acq | uired, Disp | osed of, or I | Beneficially (| Owned | |
| (Instr. 3) | | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | | (Instr. 8) | | (A) or Disposed of | | of (D |) Beneficia | nt of Securities ally Owned Following Transaction(s) and 4) | | 6. Ownership Form: Direct (D) | 7. Nature of Indirect Beneficial Ownership | | |
| | | | | | | ode | V | Amoun | (A) or (D) | Price | ` | or I | | or Indirect (I) (Instr. 4) | Indirect (Instr. 4) | |
| Common Stock - Restricted Stock Units (1) | | 08/03/2017 | | | | A | | 2,502 | A | \$ 0 | 27,088 | 27,088 (2) | | D | | |
| Common Stock | | | | | | | | | | | 297 | 297 | | D | | |
| Reminder: | Report on a s | separate line fo | r each class of secur | | | | i | Perso conta the fo | ns wh ined ir rm dis | no respoi n this for splays a | rm ai | re not requ | | formation spond unle trol numbe | ss | 1474 (9-02) |
| | | , | | e.g., puts, | | | | | | | | | | | | |
| Security | 2. Conversion or Exercise Price of Derivative Security | | Execution Da | Code | e r. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | | (Month/Day/Year) | | | An Un Sec | Title and nount of derlying curities str. 3 and | Derivative Security (Instr. 5) | 9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | Owners Form o Derivat Security Direct (or Indir | f Benefici ive Ownersl (y: (Instr. 4) |
| | | | | Code | le V | (A) | | Date Exerc | | Expiration Date | n Tit | Amount or Number of Shares | | | | |
| Renor | ting () | wners | | | | | | | | | | | | | | |

Reporting Owners

| | Relationships | | | | | | | | |
|--|---------------|--------------|--------------------------------|-------|--|--|--|--|--|
| Reporting Owner Name / Address | Director | 10% Owner | Officer | Other | | | | | |
| Kirloskar Virendra A C/O KLA-TENCOR CORPORATION ONE TECHNOLOGY DRIVE MILPITAS, CA 95035 | | | SVP & Chief Accounting Officer | | | | | | |

Signatures

| Teri Little as Attorney-in-Fact for Virendra A. Kirloskar | 08/04/2017 |
|---|------------|
| **Signature of Reporting Person | Date |

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Each restricted stock unit ("RSU") represents a contingent right to receive one share of KLA-Tencor common stock.
- (2) Does not include performance-based RSUs, if any, held by the Reporting Person for which an assessment has not yet been made regarding the achievement of the applicable performance goals. Any such holdings will be reported on a Form 4 within two business days of the date such assessment is made.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.