## 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 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) 09/03/2015						X Officer (give title below) Other (specify below)  SVP & Chief Accounting Officer					
(Street) MILPITAS, CA 95035				4. If Amendment, Date Original Filed(Month/Day/Year)						6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting PersonForm filed by More than One Reporting Person					
(City) (State) (Zip)			Table I - Non-Derivative Securities Acqu						ired, Disposed of, or Beneficially Owned						
(Instr. 3) Date		2. Transaction Date (Month/Day/Year)			(Instr. 8)		(A) or Disposed of (Instr. 3, 4 and 5)		of (D)	D) Beneficially Owned Following Reported Transaction(s)			Ownership Form:	Beneficial	
			(Month/Day/Year)		Code	V	Amour	(A) or (D)	Price	(Instr. 3 a	tr. 3 and 4)		Direct (D) or Indirect (I) (Instr. 4)	Ownership (Instr. 4)	
Common Stock Un	Stock - R	estricted	09/03/2015			A		5,875 (2) (3)	A	\$ 0	20,423	(4) (5)		D	
Common Stock		09/03/2015			M		2,938	A	\$ 0 (6)	3,235			D		
Common Stock		09/03/2015			F		1,105 (7)	D	\$ 48.83	2,130			D		
Reminder:	Report on a s	separate line fo		Derivative Sec	curiti	es Acquire	Pers cont the f	ons whatined in the contract of the contract o	no responding this for this for the splays and the splays and the splays and the splays are the	orm are a curre eneficial	not requesting ntly valid	OMB con	formation spond unle trol numbe	ess	1474 (9-02)
1 77:1 6	l.	2.77		(e.g., puts, call							*.1 1	0 D : C	0.37 1	6 10	11.37.
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security		Year) Execution Da	4. Transac Code (Instr. 8	Transaction Number of		6. Date Exercisable and Expiration Date (Month/Day/Year)		Ame Und Seco	itle and ount of lerlying urities tr. 3 and		9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s (Instr. 4)	Owners Form of Derivate Security Direct ( or Indire	Beneficial Ownership (Instr. 4)	
				Code	V	(A) (D)	Date Exe		Expiration Date	on Title	Amount or Number of Shares				

#### **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	09/08/2015	
**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 RSU represents a contingent right to receive one share of KLA-Tencor common stock.
  - On August 2, 2012, in addition to the RSUs granted on that date that were subject only to service-vesting requirements (which RSUs were previously reported on Form 4), the Reporting Person was also granted RSUs covering up to 4,700 shares of KLA-Tencor common stock, subject to both performance-vesting and service-vesting
- (2) requirements. Following the completion of KLA-Tencor's audited financial statements for the 2015 fiscal year, on September 3, 2015 the Compensation Committee of KLA-Tencor's Board of Directors determined the level at which the corporate performance goals were attained and, based on the assessment, determined that the number of shares subject to the RSUs is 5.875.
- The Reporting Person vested fifty percent (50%) of the performance-based RSUs upon the date on which the Compensation Committee of KLA-Tencor's Board of Directors (3) determined the level at which the underlying performance goals were attained (September 3, 2015) and will vest in the remaining fifty percent (50%) upon his completion of four years of service following the grant date of the award (August 2, 2012). The shares of common stock will be issued as the performance-based RSUs vest.
- (4) 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.
- (5) Reflects an increase of 5,875 RSUs in connection with the determination of the level at which the August 2, 2012 performance-based RSUs were attained, less the fifty percent (50%) of such award that vested upon such assessment, as described in footnote 3.
- As noted in Footnote 2, on August 2, 2012, the Reporting Person received a grant of performance-based RSUs that, following the completion of fiscal year 2015, was
- (6) determined by the Compensation Committee of KLA-Tencor's Board of Directors (on September 3, 2015) to cover, based on KLA-Tencor's financial performance, 5,875 shares of KLA-Tencor common stock. On September 3, 2015, the reporting person vested in fifty percent (50%) of such performance-based RSUs.
- Pursuant to such terms of the August 2, 2012 RSU grant, 1,105 shares of KLA-Tencor common stock were automatically withheld on the day of determination to cover (7) required tax withholding. The fair market value of KLA-Tencor common stock used for purposes of calculating the number of shares to be withheld was the closing price of KLA-Tencor common stock as reported on the NASDAQ Stock Market on such determination date (September 3, 2015).

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.