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).

(Print or Type Responses)

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

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) Director 10% Owner					
				3. Date of Earliest Transaction (Month/Day/Year) 08/07/2018					X Officer (give title below) Other (specify below) SVP & Chief Accounting Officer					
(Street)			4. If Amendment	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					
MILPITZ (City	AS, CA 95	(State)	(Zip)											
			Table I - Non-Derivative Securities Acqu 2A. Deemed 3. Transaction 4. Securities Acquired				5. Amount of Securities			1	7.31.			
1.Title of Security (Instr. 3)		2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	Code (Instr. 8)	ction	(A) or Disj (Instr. 3, 4		d of (D)	Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)			Form:	7. Nature of Indirect Beneficial Ownership	
				(**************************************	Code	V	Amount	(A) or (D)	Price	((Instr. 4)
Common	Stock		08/07/2018		S		1,684 (1)	D	\$ 117.579 (2)	951			D	
Common	Stock		08/07/2018		S		100 (1)	D	\$ 118.15	851			D	
Common Stock		08/07/2018		S		554 (1)	D	\$ 118.697 (3)	297		D			
Common Stock - Restricted Stock Units (4)		08/07/2018		М		2,135 (5)	D	\$ 0	16,589 (6)		D			
Common Stock		08/07/2018		M		2,135 (5)	A	\$ 0	2,432			D		
Common Stock		08/07/2018		F		1,059 (7)	D	\$ 118.16	1,373		D			
Common Stock - Restricted Stock Units (4)		08/07/2018		M		912 (8)	D	\$ 0	15,677 (6)		D			
Common Stock		08/07/2018		M		912 (8)	A	\$ 0	2,285			D		
Common Stock		08/07/2018		F		453 (7)	D	\$ 118.16	1,832			D		
Reminder:	Report on a	separate line	for each class of secu	urities beneficially o	owned direc	Per cor	sons wh	o res	form are	not requ	ction of inf uired to res OMB cont	spond unle	ess	1474 (9-02)
			Table II -	Derivative Securi						ly Owned				
Derivative Security	Title of 2. 3. Transaction 3A. Deemed Execution Date (Month/Day/Year) any			5.	6. I and (M	and Expiration Date (Month/Day/Year) Am University Section 2 (Month/Day/Year)			tle and ount of erlying crities r. 3 and	nt of Derivative Securities Security Securities (Instr. 5) Derivative Securities Beneficial		Owners Form of Derivati Security Direct (or Indire	Beneficial Ownership (Instr. 4)	
						Da	te	Expira	ntion Title	or Number				

Exercisable Date

V (A) (D)

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

/s/ Teri Little as Attorney-in-Fact for Virendra A. Kirloskar	08/09/2018
**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) This sale was effected pursuant to the terms of a Rule 10b5-1 trading plan adopted by the Reporting Person on January 31, 2018.
- Represents the weighted average sales price for the shares. The sales prices ranged from \$117.11 to \$118.04. The reporting person will provide upon request full information regarding the number of shares sold at each separate price.
- (3) Represents the weighted average sales price for the shares. The sales prices ranged from \$118.33 to \$119.07. The reporting person will provide upon request full information regarding the number of shares sold at each separate price.
- (4) Each RSU represents a contingent right to receive one share of KLA-Tencor common stock.
 - On August 7, 2014, 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 a maximum of 4,562 shares (based on 125% of the target shares of 3,650) of KLA-Tencor common stock,
- (5) subject to both performance-vesting and service-vesting requirements. On August 31, 2017 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 4,270. On August 7, 2018, the remaining 50% of the shares vested.
- (6) 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.
- Pursuant to the terms of the grant, shares of KLA-Tencor common stock were automatically withheld at vesting to cover required tax withholding. The fair market value of (7) 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 August 7, 2018.
- (8) On August 7, 2014, the Reporting Person was granted an RSU for 3,650 shares of KLA-Tencor Common Stock. On August 7, 2018, the remaining 25% of those shares vested.

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.