FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

| Washington, | D.C. | 20549 |
|-------------|------|-------|
| | | |

| Check this box if no longer subject to | STATEMENT O |
|--|--------------|
| Section 16. Form 4 or Form 5 | |
| obligations may continue. See | |
| Instruction 1(b). | Filed pursua |

F CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

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* <u>Rothenstein David M</u> | | | | | | 2. Issuer Name and Ticker or Trading Symbol CIENA CORP [CIEN] | | | | | | | | | neck all ap Dire | plicable) ctor | | Owner | |
|---|---|--|---|---------|---|---|---------|------------------|---|-----------|---------------------|--|--------------------------------|----------------|---|--|---|--|--|
| (Last) 1201 WI | (Fi | , | Middle) | | 3. Date of Earliest Transaction (Month/Day/Year) 12/14/2010 X Officer (give title below) SVP, Gen. Counsel | | | | | | | | | | | | | | |
| (Street) LINTHIC | | | 21090 Zip) | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | 6. Lin | e) X Fori Fori | lual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person | | | |
| | | Tabl | e I - Noi | n-Deriv | ative | Se | curitie | s Acc | quired, | Dis | posed o | f, or | Bene | ficia | lly Own | ed | | | |
| | | | Date | | ar) E | 2A. Deemed Execution Date, if any (Month/Day/Year) | | Code (Instr. | | | | | | Secur Benet | icially d Following | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | |
| | | | | | | | | | Code | v | Amount | (A) or (D) Prid | | Price | Trans | action(s) 3 and 4) | | (Instr. 4) | |
| Common | Stock | | | 12/14 | 1/2010 |) | | | A ⁽¹⁾ | | 38,110 |) | Α | \$19. | 19.1 177,921 D | | | | |
| Common Stock 12/14/2 | | | | | 1/2010 | 2010 | | A ⁽²⁾ | | 9,520 A S | | \$19. | 9.1 187,441 ⁽³⁾ | | D | | | | |
| | | Та | | | | | | | | | sed of, onvertib | | | | Owned | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution I if any (Month/Day | Date, | Date, Transaction Code (Instr | | on of | | 6. Date Exercis. Expiration Date (Month/Day/Yea | | е | 7. Title and Amount of Securities Underlying Derivative Security (Instrand 4) | | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | Code | v | (A) | (D) | Date Exercisa | | Expiration Date | Title | Amo or Num of Shar | ber | | | | | |

Explanation of Responses:

- 1. Reflects Restricted Stock Units (RSUs) that vest over four years, with one-sixteenth of the grant amount vesting on March 20, June 20, September 20, and December 20 of each year, commencing on March
- 2. Reflects Performance Stock Units (PSUs) for which the vesting is subject to the achievement of certain performance goals and an additional service period. Based upon the timing of achievement of the performance goals, the target amounts reported may increase by as much as an additional 70% of the grant amount reported above.
- 3. Shares reported include unvested Restricted Stock Units (RSUs).

Remarks:

By: Erik J. Lichter For: David

12/16/2010

M. Rothenstein

** Signature of Reporting Person Date

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

- * 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).

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

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