**ILLUMINA INC** Form SC 13G/A February 11, 2004

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

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(AMENDMENT NO. 2) \*

Illumina, Inc. \_\_\_\_\_ (Name of Issuer) Common Stock \_\_\_\_\_\_ (Title of Class of Securities) 45232710 \_\_\_\_\_\_ (CUSIP Number) December 31, 2003 \_\_\_\_\_\_ (Date of Event Which Requires Filing of this Statement) Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[ ] Rule 13d-1(b)

[ ] Rule 13d-1(c)

[X] Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Page 1 of 15 Pages

CUSIP	NO. 45232710	13G	PAGE 2 OF 15 PAGES			
1		G PERSONS TION NOS. OF ABOVE PERSONS (ENTIT	IES ONLY)			
2	CHECK THE APPROPRI	TATE BOX IF A MEMBER OF A GROUP (	SEE INSTRUCTIONS) (a) [ ] (b) [ ]			
3	SEC USE ONLY					
4	CITIZENSHIP OR PLA	ACE OF ORGANIZATION				
	Delaware					
		5 SOLE VOTING POWER				
		0				
	NUMBER OF SHARES	6 SHARED VOTING POWER				
	OWNED BY	3,315,298				
	EACH REPORTING PERSON WITH	7 SOLE DISPOSITIVE POWER 0				
		8 SHARED DISPOSITIVE POWER				
		3,315,298				
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	3,315,298					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) [ ]					
11	PERCENT OF CLASS F	REPRESENTED BY AMOUNT IN ROW (9)				
	10.09%					
12	TYPE OF REPORTING	PERSON (SEE INSTRUCTIONS)				
	PN					

\*SEE INSTRUCTIONS BEFORE FILLING OUT!

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CUSIP	NO. 45232710		13G	PAGE	3 OF	15 	PAGES
1	I.R.S. IDENTIFICAT		·	ES ONLY)			
2	CHECK THE APPROPRI	ATE BOX IF A MEN	 1BER OF A GROUP (SE	EE INSTRUC	CTIONS (a) (b)	[ ]	-
3	SEC USE ONLY						
4	CITIZENSHIP OR PLA	CE OF ORGANIZATI	 ION				
	Delaware						
		5 SOLE VOTIN	IG POWER				
		0					
	NUMBER OF SHARES	6 SHARED VOI	ING POWER				
	BENEFICIALLY OWNED BY	3,31	L5 <b>,</b> 298 				
	EACH REPORTING PERSON WITH	7 SOLE DISPO	SITIVE POWER				
		8 SHARED DIS	SPOSITIVE POWER				
		3,31	15,298				
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  3,315,298						
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) [ ]						
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)						
12	TYPE OF REPORTING	PERSON (SEE INSI	RUCTIONS)				

\*SEE INSTRUCTIONS BEFORE FILLING OUT!

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CUSIP NO. 45232710			13G	PAGE	4 OF	15 PAGES
1	NAMES OF REPORTION I.R.S. IDENTIFICATION Steven Laza	ATION	SONS NOS. OF ABOVE PERSONS (ENTITIES	ONLY)		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  (a) [ ]  (b) [ ]					
3	SEC USE ONLY					
4	CITIZENSHIP OR P	LACE O	F ORGANIZATION			
	U.S.A					
		 5	SOLE VOTING POWER			
			4,625			
	NUMBER OF SHARES	6	SHARED VOTING POWER			
	BENEFICIALLY OWNED BY		3,315,298			
	EACH REPORTING	7	SOLE DISPOSITIVE POWER			
	PERSON WITH		4,625			
	WIIH	8	SHARED DISPOSITIVE POWER			
			3,315,298			
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	3,315,298					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) [ ]					
11	PERCENT OF CLASS	REPRE	SENTED BY AMOUNT IN ROW (9)			
	10.11%					
12	TYPE OF REPORTIN	 G PERS	ON (SEE INSTRUCTIONS)			
	IN					

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## \*SEE INSTRUCTIONS BEFORE FILLING OUT!

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CUSIP	NO. 45232710		13G	PAGE 5 OF 15 PAGES		
1	NAMES OF REPORT I.R.S. IDENTIF		SONS NOS. OF ABOVE PERSONS (ENTITIES	ONLY)		
	Keith Cr	randell				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  (a) [ ]  (b) [ ]					
3	SEC USE ONLY					
4	CITIZENSHIP OF	R PLACE O	F ORGANIZATION			
	U.S.A					
		5	SOLE VOTING POWER			
			5,395			
	NUMBER OF	6	SHARED VOTING POWER			
	SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON		3,315,298			
		7	SOLE DISPOSITIVE POWER			
			5,395			
	WITH	8	SHARED DISPOSITIVE POWER			
			3,315,298			
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	3,320,69	93				
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) [ ]					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)					
	10.11%					
12	TYPE OF REPORT	ING PERS	ON (SEE INSTRUCTIONS)			

ΙN \*SEE INSTRUCTIONS BEFORE FILLING OUT! Page 5 of 15 Pages 13G CUSIP NO. 45232710 PAGE 6 OF 15 PAGES NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Robert Nelsen CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) [ ] (b) [ ] \_\_\_\_\_\_ 3 SEC USE ONLY ------CITIZENSHIP OR PLACE OF ORGANIZATION U.S.A \_\_\_\_\_\_ 5 SOLE VOTING POWER 17,895 \_\_\_\_\_ NUMBER OF 6 SHARED VOTING POWER SHARES BENEFICIALLY 3,315,298 OWNED BY 7 SOLE DISPOSITIVE POWER EACH REPORTING 17**,**895 PERSON WITH \_\_\_\_\_ 8 SHARED DISPOSITIVE POWER 3,315,298 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,333,193

10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) [ ]

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11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

10.14%

12	TYPE OF REPORTIN	NG PERS	ON (SEE INSTRUCTIONS)				
		*SEE I	NSTRUCTIONS BEFORE FILLING OUT!				
			Page 6 of 15 Pages				
CUSIP	NO. 45232710		13G	PAGE	7 OF	 15 	PAGES
1	I.R.S. IDENTIFIC	CATION	SONS NOS. OF ABOVE PERSONS (ENTITIES	ONLY)			
2	Clinton Bybee  CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)  (a) []						
3	SEC USE ONLY				(b) 		
4	CITIZENSHIP OR E	PLACE O	F ORGANIZATION				
		5	SOLE VOTING POWER				
			5,088 				
	NUMBER OF SHARES	6	SHARED VOTING POWER				
	BENEFICIALLY OWNED BY		3,315,298				
	EACH REPORTING	7	SOLE DISPOSITIVE POWER				
	PERSON		5,088				
	WITH	8	SHARED DISPOSITIVE POWER				
			3,315,298				
9	AGGREGATE AMOUNT	 T BENEF	ICIALLY OWNED BY EACH REPORTING	PERSON			
	3,320,386						
10		GREGATE	AMOUNT IN ROW (9) EXCLUDES CER				

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

10.11%

\_\_\_\_\_\_

12 TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

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\*SEE INSTRUCTIONS BEFORE FILLING OUT!

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Schedule 13G

Item 1(a).
Name of Issuer: Illumina, Inc. (the "Issuer").

Item 1(b). Address of Issuer's Principal Executive Offices: 9885 Towne Center Dr., San Diego, CA 92121.

Item 2(a).

Names of Persons Filing: ARCH Venture Fund III, L.P. ("ARCH Venture Fund III"); ARCH Venture Partners, L.L.C. ("AVP LLC") (collectively, the "Reporting Entities" and individually, each a "Reporting Entity") and Steven Lazarus ("Lazarus"), Keith Crandell ("Crandell"), Robert Nelsen ("Nelsen") and Clinton Bybee ("Bybee") (collectively, the "Managing Directors" and individually, each a "Managing Director"). The Reporting Entities and the Managing Directors collectively are referred to as the "Reporting Persons".

- Item 2(b). Address of Principal Business Office or, if None, Residence: 8725 W. Higgins Road, Suite 290, Chicago, IL 60631.
- Item 2(c). Citizenship: ARCH Venture Fund III is a limited partnership organized under the laws of the State of Delaware. AVP LLC is a limited liability company organized under the laws of the State of Delaware. Each Managing Director is a US citizen.
- Item 2(e). CUSIP Number: 45232710
- Item 3. If this statement is filed pursuant to Sections 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not Applicable.

- Item 4. Ownership.
  - (a) Amount beneficially owned:

ARCH Venture Fund III is the record owner of 3,315,298 shares of Common Stock (the "Record

Shares") as of December 31, 2003. As the sole general partner of ARCH Venture Fund III, AVP LLC may be deemed to own the Record Shares. As individual general partners or managing directors of AVP LLC, each Managing Director may also be deemed to share the power and direct the disposition and vote of the Record Shares. In addition, as of December 31, 2003, Lazarus is the record holder of 4,625 shares of Common Stock, Bybee is the record holder of 5,088 shares of Common Stock, Crandell is the holder of 5,395 shares of Common Stock, and Nelsen is the record owner of 10,395 shares of Common Stock and owns an option that is exercisable to purchase 7,500 shares of Common Stock ("Option Shares").

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(b) Percent of class:

Each reporting person except the Managing Directors: 10.09%. Each of the Managing Directors, excluding Nelsen: 10.11%. Nelsen: 10.14%. The foregoing percentages are calculated based on the 32,850,123 shares of Common Stock reported to be outstanding in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 4, 2003 (the "Reported Shares"). Nelsen's percentage is calculated based on 32,857,623 shares, which included the Reported Shares and the Option Shares.

- (c) Number of shares as to which the person has:
  - (i) Sole power to vote or to direct the vote:

O shares for each Reporting Person except the Managing Directors. 4,625 shares for Lazarus, 5,088 shares for Bybee, 5,395 shares for Crandell and 17,895 shares for Nelsen, which includes the Option Shares.

(ii) Shared power to vote or to direct the vote:

Each of the Reporting Persons: 3,315,298.

(iii) Sole power to dispose or to direct the
disposition of:

O shares for each Reporting Person except the Managing Directors. 4,625 shares for Lazarus, 5,088 shares for Bybee, 5,395 shares for Crandell and 17,895 shares for Nelsen, which includes the Option Shares.

(iv) Shared power to dispose or to direct the disposition of:

Each of the Reporting Persons: 3,315,298.

Each Reporting Person disclaims beneficial ownership of such shares of Common Stock except for the shares, if any, such Reporting Person holds of record.

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another

Person.

Not Applicable.

Item 7. Identification and Classification of the Subsidiary which

Acquired the Security Being Reported on By the Parent Holding

Company or Control Person.

Not Applicable.

Item 8. Identification and Classification of Members of the Group.

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Not Applicable. The Reporting Persons expressly disclaim membership in a "group" as used in Rule 13d-1(b) (ii) (J).

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certification.

Not Applicable. This statement on Schedule 13G is not filed pursuant to Section 240.13d-1 (b) nor Section 240.13d-1 (c).

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#### SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 11, 2004

ARCH VENTURE FUND III, L.P.

By: ARCH Venture Partners, L.L.C.

its	General Partner	
By:	*	
	Steven Lazarus Managing Director	
ARCH VE	NTURE PARTNERS, L.L.C.	
By:	*	
	Steven Lazarus Managing Director	
	*	
Stever	n Lazarus	
	*	
Keith	Crandell	
	*	
Robert	. Nelsen	
	*	
Clinto	on Bybee	
	* By: /s/ Mark McDonnell	
	Mark McDonnell as Attorney-in-Fact	

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This Schedule 13G was executed by Mark McDonnell pursuant to Powers of Attorney attached hereto as Exhibit 2 and incorporated herein by reference.

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