

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such State.

PROSPECTUS (Subject to Completion)
 Issued April 19, 1995

Filed Pursuant to Rule 424(a)
 Registration Number 33-58707

1,500,000 Shares

KLA Instruments Corporation

COMMON STOCK

 ALL OF THE SHARES OF COMMON STOCK OFFERED HEREBY ARE BEING SOLD BY KLA INSTRUMENTS CORPORATION (THE "COMPANY"). THE COMPANY'S COMMON STOCK IS TRADED IN THE OVER-THE-COUNTER MARKET UNDER THE NASDAQ NATIONAL MARKET SYMBOL "KLAC." THE LAST SALE PRICE FOR THE COMMON STOCK ON APRIL 18, 1995, AS REPORTED ON THE NASDAQ NATIONAL MARKET, WAS \$61 1/4 PER SHARE. SEE "PRICE RANGE OF COMMON STOCK."

THIS OFFERING INVOLVES A HIGH DEGREE OF RISK. SEE "RISK FACTORS."

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

PRICE \$ A SHARE

<TABLE>
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	PRICE TO PUBLIC	UNDERWRITING DISCOUNTS AND COMMISSIONS (1)	PROCEEDS TO COMPANY (2)
	-----	-----	-----
<S>	<C>	<C>	<C>
Per Share.....	\$	\$	\$
Total(3).....	\$	\$	\$

</TABLE>

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- (1) The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended. See "Underwriters."
 - (2) Before deducting expenses estimated at \$400,000.
 - (3) The Company has granted to the Underwriters an option, exercisable within 30 days of the date hereof, to purchase up to 225,000 additional Shares at the price to public less underwriting discounts and commissions for the purpose of covering over-allotments, if any. If the Underwriters exercise such option in full, the total price to public, underwriting discounts and commissions and proceeds to Company will be \$, \$, and \$, respectively. See "Underwriters."
-

The Shares are offered subject to prior sale, when, as and if accepted by the Underwriters named herein and subject to approval of certain legal matters by Morrison & Foerster, counsel for the Underwriters. It is expected that delivery of the Shares will be made on or about , 1995 at the offices of Morgan Stanley & Co. Incorporated, New York, N.Y., against payment therefor in New York funds.

, 1995

NO PERSON IS AUTHORIZED IN CONNECTION WITH ANY OFFERING MADE HEREBY TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATION NOT CONTAINED OR INCORPORATED BY REFERENCE IN THIS PROSPECTUS, AND ANY INFORMATION OR REPRESENTATION NOT CONTAINED OR INCORPORATED HEREIN MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY OR ANY UNDERWRITER. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY BY ANY PERSON IN ANY JURISDICTION IN WHICH IT IS UNLAWFUL FOR SUCH PERSON TO MAKE SUCH AN OFFERING OR SOLICITATION. NEITHER THE DELIVERY OF THIS PROSPECTUS AT ANY TIME NOR ANY SALE MADE HEREUNDER SHALL UNDER ANY CIRCUMSTANCE IMPLY THAT THE INFORMATION HEREIN IS CORRECT AS OF ANY DATE SUBSEQUENT TO THE DATE HEREOF.

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 INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents heretofore filed by the Company with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are incorporated herein by reference: (1) the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 1994; (2) the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 1994; (3) the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 1994; and (4) the Company's Registration Statement on Form 8-A filed with the Commission on October 26, 1981 (including all amendments in respect thereof).

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this Prospectus and prior to the termination of the offering of the Common Stock hereunder shall be deemed to be incorporated by reference herein and to be a part hereof from the date of the filing of such reports and documents. The Company will provide without charge to each person to whom this Prospectus is delivered, upon written or oral request, a copy of any or all of the foregoing documents incorporated by reference in this Prospectus. Requests for such documents should be directed to KLA Instruments Corporation, 160 Rio Robles, San Jose, CA 95161, Attn: Investor Relations, telephone (408) 434-4200.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Prospectus to the extent that a statement contained herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Prospectus.

 IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE COMMON STOCK OFFERED HEREBY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH TRANSACTIONS MAY BE EFFECTED ON THE NASDAQ NATIONAL MARKET, IN THE OVER-THE-COUNTER MARKET OR OTHERWISE. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

IN CONNECTION WITH THIS OFFERING, CERTAIN UNDERWRITERS AND SELLING GROUP MEMBERS (IF ANY) OR THEIR RESPECTIVE AFFILIATES MAY ENGAGE IN PASSIVE MARKET MAKING TRANSACTIONS IN THE COMMON STOCK ON THE NASDAQ NATIONAL MARKET IN ACCORDANCE WITH RULE 10B-6A UNDER THE SECURITIES EXCHANGE ACT OF 1934. SEE "UNDERWRITERS."

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PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial statements appearing elsewhere or incorporated by reference in this prospectus.

THE COMPANY

KLA is the leader in the design, manufacture, marketing and service of yield management and process monitoring systems for the semiconductor industry. KLA believes that it is the world's largest supplier to the wafer, reticle and optical metrology inspection equipment markets. KLA's systems are used to analyze product and process quality at critical steps in the manufacture of integrated circuits, providing feedback so that fabrication problems can be identified, addressed and contained. This understanding of defect sources and how to contain them enables semiconductor manufacturers to increase yields. Quickly attaining and then maintaining high yields is one of the most important determinants of profitability in the semiconductor industry. The Company believes that its customers typically experience rapid paybacks on their investments in the Company's systems. The Company sells to virtually all of the world's semiconductor manufacturers and has achieved very high market shares in its principal businesses.

RECENT QUARTERLY RESULTS. The Company reported net sales of \$118.1 million, net income of \$20.8 million and earnings per share of \$.86 for the quarter ended March 31, 1995 compared to net sales of \$62.7 million, net income of \$9.0 million and earnings per share of \$.40 for the same quarter in 1994. See "Recent Quarterly Results."

THE OFFERING

<TABLE>	
<S>	<C>
Common Stock offered.....	1,500,000 shares(1)
Common Stock to be outstanding after the offering.....	24,724,000 shares(1)(2)
Use of proceeds.....	For the retirement of indebtedness and for general corporate purposes. The Company may use a portion of the net proceeds to acquire businesses, products or technologies complementary to the Company's current businesses. See "Use of Proceeds."
The Nasdaq National Market symbol.....	KLAC
</TABLE>	

SUMMARY CONSOLIDATED FINANCIAL DATA
(IN MILLIONS, EXCEPT PER SHARE DATA)

<TABLE>						
<CAPTION>						SIX
MONTHS ENDED						
DECEMBER 31,						FISCAL YEAR ENDED JUNE 30,
-----						-----
1994	1990	1991	1992	1993	1994	1993
-----	-----	-----	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>	<C>	<C>
<C>						
CONSOLIDATED STATEMENT OF OPERATIONS DATA:						
Net sales.....	\$161.6	\$148.4	\$156.0	\$167.2	\$243.7	\$109.0
\$187.9						
Gross profit.....	75.5	65.6	56.0	59.8	110.7	45.4
98.9						
Write-off of acquired in-process technology(3).....	--	--	--	--	--	--
(25.2)						
Income (loss) from operations.....	17.7	5.0	(13.6)	11.5	40.1	14.4
18.5						
Income (loss) from continuing operations(4).....	12.2	2.4	(16.6)	7.0	30.2	10.5
13.8						
Income (loss) per share from continuing operations....	.67	.13	(.90)	.35	1.37	.50
.58						
Weighted average common and dilutive common						
equivalent shares.....	18.0	18.6	18.5	19.7	22.0	20.9

24.0
</TABLE>

<TABLE>
<CAPTION>

	AS OF DECEMBER 31,	
1994	-----	
----		AS
ADJUSTED (5)	ACTUAL	
----	-----	-----
<S>	<C>	<C>
CONSOLIDATED BALANCE SHEET DATA:		
Cash, cash equivalents and short-term investments.....	\$125.5	\$ 192.9
Working capital.....	191.0	278.3
Marketable securities.....	17.0	17.0
Total assets.....	365.4	432.8
Notes payable and current portion of long-term debt.....	22.6	2.6
Long-term debt.....	--	--
Stockholders' equity.....	245.4	332.8

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- (1) Assumes the Underwriters' over-allotment option to purchase 225,000 shares is not exercised. See "Underwriters."
- (2) Based on the number of shares outstanding at December 31, 1994. Excludes 4,161,000 shares of Common Stock reserved for issuance under the Company's stock option and employee stock purchase plans, including 2,739,000 shares issuable upon the exercise of options outstanding as of December 31, 1994, at a weighted average exercise price of \$21.47 per share.
- (3) Represents a charge for the write-off of in-process technology related to the Company's acquisition of Metrologix, Inc. in December 1994. The after-tax charge was \$16.2 million, or \$.67 per share.
- (4) Income (loss) from operations less interest expense and other, net, plus interest income, less provision for income taxes.
- (5) Gives effect to the sale of the 1,500,000 shares offered hereby by the Company, at an assumed public offering price of \$61.25 per share, and the anticipated use of a portion of the net proceeds therefrom as set forth under "Use of Proceeds."

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THE COMPANY

KLA is the leader in the design, manufacture, marketing and service of yield management and process monitoring systems for the semiconductor industry. KLA believes that it is the world's largest supplier to the wafer, reticle and optical metrology inspection equipment markets. KLA's systems are used to analyze product and process quality at critical steps in the manufacture of integrated circuits, and to provide feedback so that fabrication problems can be identified, addressed and contained. This understanding of defect sources and how to contain them enables semiconductor manufacturers to increase yields. Quickly attaining and then maintaining high yields is one of the most important determinants of profitability in the semiconductor industry. The Company believes that its customers typically experience rapid paybacks on their investments in the Company's systems. The Company sells to virtually all of the world's semiconductor manufacturers and has achieved very high market shares in its principal businesses.

Maximizing yields, or the number of good die per wafer, is a key goal of modern semiconductor manufacturing. Higher yields increase the revenue a manufacturer can obtain for each semiconductor wafer processed. As line width geometries decrease, yields become more sensitive to the size and density of defects. Semiconductor manufacturers use yield management and process monitoring systems to improve yields by identifying defects, by analyzing them to determine process problems, and, after corrective action has been taken, by monitoring subsequent results to ensure that the problem has been contained. Monitoring and analysis may take place at many points in the fabrication process as wafers move through a production cycle consisting of hundreds of separate process steps.

Several years ago, the Company recognized the industry's need for in-line monitoring to provide real-time process management capability. Prior to the introduction of KLA's 2100 series, no suppliers' products were capable of both the speed and the sensitivity needed for in-line inspection for all defect types at critical process steps. In-line inspection is a critical yield enhancement and cost reduction technique because it allows defect detection in real-time rather than waiting until after final test results become available to discover

problems that have a significant yield impact. In response, the Company devoted substantial resources to developing systems with the throughput, reliability and associated data analysis capabilities for in-process inspection. During the past several years, customers' use of the Company's wafer inspection systems began evolving from single system, off-line engineering analysis applications to multiple systems monitoring critical steps directly on advanced fabrication lines. As a result of these advantages, most of the Company's customers are adopting the KLA methodology of installing multiple systems directly monitoring critical steps in the integrated circuit manufacturing process. The Company believes that the market for in-line monitoring systems is several times larger than its traditional market for engineering analysis systems.

The Company's technological strength has enabled it to develop and introduce major new product families in the past two years for the following three business units: WISARD, which addresses semiconductor wafer inspection; RAPID, which addresses reticle inspection; and Metrology, which addresses overlay registration and linewidth measurement. The Company believes that its WISARD and RAPID product families incorporate proprietary technologies which provide greater sensitivity to defects than any competing systems. KLA's strategy is to leverage its technology leadership to develop new hardware and software yield management tools. The Company has committed significant resources to internally developing emerging yield management technologies. KLA has also acquired technologies that it believes will be critical to enhancing its long-term competitive position. In fiscal 1995, the Company has expanded its position in the market for yield management and process monitoring systems by expanding its product offerings to include yield management software, through its recently formed PRISM division, and electron beam ("E-Beam") metrology applications through the December 1994 acquisition of Metrologix, Inc. The Company's long-term strategy is to link information from its new and existing products, as well as from measurement systems manufactured by others, to form an integrated network of detection and analysis systems.

KLA sells its products through a combination of direct sales and distribution channels. The Company believes that the size and location of its field sales, service and applications engineering organization represents

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a significant competitive advantage in its served markets. Sales, service and applications operations throughout the world employ over 400 sales, service and applications engineers. In order to meet continuing developments in the semiconductor industry and to broaden the applications for its image processing technology, the Company is committed to significant engineering efforts for product improvement and new product development. Approximately 20% of the Company's workforce is engaged in engineering, research and development. The Company's principal manufacturing activities take place in San Jose, California; Bevaix, Switzerland; and Migdal Ha'Emek, Israel; and consist primarily of assembling and testing components and subassemblies which are acquired from third party vendors and then integrated into the Company's finished products.

KLA was incorporated in Delaware in July 1975. The Company's principal offices are located at 160 Rio Robles, San Jose, California 95161, and its telephone number is (408) 434-4200.

RECENT QUARTERLY RESULTS

The Company reported net sales of \$118.1 million, net income of \$20.8 million and earnings per share of \$.86 for the quarter ended March 31, 1995 compared to net sales of \$62.7 million, net income of \$9.0 million and earnings per share of \$.40 for the same quarter in 1994. Sales of Company products increased in all product divisions while gross margin increased to 54.1% in the 1995 quarter compared to 46.8% in the prior year period. A favorable product mix, cost reductions and improving overhead absorption accounted for the improvement in gross margin.

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RISK FACTORS

Prospective purchasers of Shares offered hereby should carefully consider the following risk factors in addition to the other information presented in this Prospectus.

Potential Fluctuations in Quarterly Results. The Company has experienced and expects to continue to experience significant fluctuations in its quarterly operating results. The Company's expense levels are based, in part, on expectations of future revenues. If revenue levels in a particular quarter do not meet expectations, operating results will be adversely affected, which may have an adverse impact on the market price of the Company's Common Stock. Since in a typical quarter the Company sells a relatively small number of high priced systems, the sale by the Company of fewer systems than anticipated in any quarter may have a substantial impact on the operating results for the quarter.

New product introductions may also contribute to fluctuations in quarterly operating results, especially since customers may defer ordering products from the Company's existing product lines. The Company's results also will be affected by strategic decisions made by management regarding whether to continue particular product lines, new product introductions by the Company's competitors, the volume, mix and timing of orders received during a period, fluctuations in foreign exchange rates, and changing conditions in both the semiconductor industry and key semiconductor markets around the world.

Volatility of Semiconductor Industry. The Company's business depends in large part upon the capital expenditures of semiconductor manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits and products utilizing integrated circuits. The semiconductor industry is highly cyclical and has historically experienced periodic downturns, which often have had a severe effect on the semiconductor industry's demand for yield management and process monitoring systems. Semiconductor industry downturns have adversely affected the Company's results of operations. For example, the Company believes that depressed capital expenditures by semiconductor manufacturers in Japan have adversely affected the Company's revenues and operating results in the past. Any future weakness in demand in the semiconductor industry is likely to have a material adverse effect on the Company's business and results of operations. In addition, the need for continued investment in engineering, research and development and extensive ongoing customer service and support requirements worldwide will limit the Company's ability to reduce expenses in response to any such downturn. Further, there can be no assurance that developments in the semiconductor industry or the semiconductor equipment industry will occur at the rate or in the manner expected by the Company.

Dependence on Introduction of New Products and Product Enhancements. The Company believes that its continued success will depend on its ability to continuously develop and manufacture new products and product enhancements and to introduce them into the market in response to demands for higher performance yield management and process monitoring systems. Failure to develop and introduce new products and product enhancements or to gain customers' acceptance of such products in a timely fashion could harm the Company's competitive position. Furthermore, due to the risks inherent in transitioning to new products, the Company must accurately forecast demand in both volume and configuration and also manage the transition from older products. If new products have reliability or quality problems, reduced orders, higher manufacturing costs, delays in collecting accounts receivable and additional service and warranty expense may result. In the past, the Company has experienced some delays as well as reliability and quality problems in connection with product introductions, resulting in some of these consequences. The Company plans to introduce several new products in fiscal 1996. There can be no assurance that the Company will successfully develop and manufacture new products, or that new products introduced by the Company will be accepted in the marketplace. If the Company does not successfully introduce new products, the Company's results of operations will be materially adversely affected.

Competition and Rapid Technological Change. The semiconductor equipment industry is highly competitive and is characterized by rapidly advancing technology. In each of the markets it serves, the Company increasingly faces competition and the threat of competition from established and potential competitors, some of which may have greater financial, engineering, manufacturing and marketing resources than the Company. Development of new technologies that have price/performance characteristics superior to the Company's technologies could adversely affect the Company's results of operations. There can be no assurance that the Company will be able to develop and market new products successfully or that the products

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introduced by others will not render the Company's products or technologies non-competitive or obsolete. See "Business -- Competition."

Limited Protection of Intellectual Property. The Company's success depends in part on its proprietary technology. While the Company attempts to protect its proprietary technology through patents, copyrights and trade secrets, it believes that its success will depend more upon technological expertise, continuing development of new systems, market penetration and installed base and the ability to provide comprehensive support and service to customers. There can be no assurance that the Company will be able to protect its technology or that competitors will not be able to develop similar technology independently. The Company currently has a number of United States and foreign patents and patent applications. There can be no assurance that the claims allowed on any patents held by the Company will be sufficiently broad to protect the Company's technology, or that any patents will issue from any application pending or filed by the Company. In addition, there can be no assurance that any patents issued to the Company will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide competitive advantages to the Company.

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. In addition, the Company and its customers from time to time receive letters from third parties, including some of the Company's competitors, alleging infringement of such

parties' rights by the Company's products. See "-- Notice of Patent Infringement Received by Customers." Such letters are prevalent in the Company's industry and there can be no assurance that the Company would prevail in any litigation seeking damages or expenses from the Company or to enjoin the Company from selling its products on the basis of such alleged infringement, or that the Company would be able to license any valid and infringed patents held by third parties on reasonable terms. In the event of litigation to determine the validity of any third-party claims, such litigation could result in significant expense to the Company or other adverse consequences to the Company and divert the efforts of the Company's technical and management personnel, whether or not such litigation is determined in favor of the Company.

Notice of Patent Infringement Received by Customers. Some customers using certain products of the Company have received a notice of infringement from Technivision Corporation and Jerome H. Lemelson, alleging that equipment used in the manufacture of semiconductor products infringes patents issued to Mr. Lemelson relating to "computer image analysis" or "digital signal generation and analysis." Certain of these customers have notified the Company that they may seek indemnification from the Company for any damages and expenses resulting from this matter. Certain of the Company's customers are engaged in litigation with Mr. Lemelson involving a number of Mr. Lemelson's patents, and are challenging the validity of these patents and whether these patents are infringed. It is possible that the Company's direct participation in this litigation may be required. The Company is likely to incur costs if such participation is required. Although management of the Company believes that this matter will not have a material adverse effect on the Company, the Company cannot predict the outcome of this or similar litigation or its effect upon the Company.

Dependence on Japanese Market. The future performance of the Company will be dependent, in part, upon its ability to continue to compete successfully in the Japanese market, one of the largest markets for yield management and process monitoring equipment. The Company's ability to compete in this market in the future is dependent upon continuing free trade between Japan and the United States in this industry, the continuing ability of the Company to develop products in a timely manner that meet the technical requirements of its Japanese customers, and the continuing ability of the Company and its Japanese distributor, Tokyo Electron, Limited ("TEL"), to maintain satisfactory relationships with leading companies in the Japanese semiconductor industry. The Company's sales to Japan will also be affected by the overall health of the Japanese economy, including the effects of currency exchange rate fluctuations on the global competitiveness of Japanese semiconductor manufacturers. In addition, any adverse developments in the Company's relationship with TEL could adversely affect the Company's operating results. Over the last three years, the Company significantly increased its customer service organization in Japan in order to assume service and support responsibilities from TEL.

Importance of International Sales. International sales accounted for 57%, 62% and 65% of the Company's net sales for fiscal years 1992, 1993 and 1994, respectively. The Company expects that international sales will continue to represent a significant percentage of net sales. International sales and operations may be adversely affected by the imposition of governmental controls, export license requirements,

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restrictions on the export of technology, political instability, trade restrictions, changes in tariffs and difficulties in staffing and managing international operations. The net sales and earnings from the Company's international business may be affected by fluctuations in currency exchange rates. Although the Company attempts to manage near term currency risks through "hedging," there can be no assurance that such efforts will be adequate in each case. These factors could have a material adverse effect on the Company's future sales and operating results.

Dependence on Key Employees. The future success of the Company is dependent, in part, on its ability to retain certain key personnel. The Company also needs to attract additional skilled personnel in all areas of its business to continue to grow. Competition for such personnel is intense. There can be no assurance that the Company will be able to retain its existing key management, engineering, and sales personnel or attract additional qualified employees in the future.

Dependence on Suppliers. Certain of the components and subassemblies included in the Company's systems are obtained from a single source or a limited group of suppliers. Although the Company seeks to reduce dependence on sole and limited source suppliers in some cases, the partial or complete loss of certain of these sources could have at least a temporary adverse effect on the Company's results of operations and damage customer relationships.

Potential Volatility of Common Stock Price. The market price of the Common Stock could be subject to significant fluctuations in response to variations in quarterly operating results, shortfalls in revenues or earnings from levels expected by securities analysts and other factors such as announcements of technological innovations or new products by the Company or by the Company's

competitors, government regulations, developments in patent or other proprietary rights, and developments in the Company's relationships with parties to collaborative agreements. In addition, the stock market has in recent years experienced significant price fluctuations. These fluctuations often have been unrelated to the operating performance of the specific companies whose stocks are traded. Broad market fluctuations, as well as economic conditions generally and in the semiconductor industry specifically, may adversely affect the market price of the Company's Common Stock.

Potential Anti-Takeover Effects. Certain provisions of the Company's stockholder rights plan, its Certificate of Incorporation and Delaware law could discourage potential acquisition proposals and could delay or prevent a change in control of the Company. Such provisions could diminish the opportunities for a stockholder to participate in tender offers, including tender offers at a price above the then current market value of the Common Stock. Such provisions may also inhibit increases in the market price of the Common Stock that could result from takeover attempts. See "Description of Capital Stock." In addition, the Board of Directors has the authority to issue up to 1,000,000 shares of Preferred Stock and 1,000,000 shares of Junior Common Stock without any further vote or action by the stockholders. The issuance of Preferred Stock or Junior Common Stock may have the effect of delaying, deferring or preventing a change in control of the Company without further action by the stockholders and could adversely affect the rights and powers, including voting rights, of the holders of Common Stock. Such effects could result in a decrease in the market price of the Company's Common Stock.

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USE OF PROCEEDS

The net proceeds to be received by the Company from the sale of the Common Stock offered hereby are estimated to be \$87,341,000 (\$100,502,000 if the Underwriters' over-allotment option is exercised in full), assuming a public offering price of \$61.25 per share. The Company intends to use \$20 million of the net proceeds to retire outstanding bank indebtedness, bearing interest at 7.6% per annum, at its maturity in August 1995 and to use the remainder of such net proceeds for general corporate purposes. In addition, the Company may use a portion of the net proceeds to acquire businesses, products or technologies complementary to the Company's current businesses, although it has no such commitments and no such acquisitions are currently being negotiated or planned. Pending such uses, the net proceeds of this offering will be invested in short-term and medium-term, interest-bearing investments.

PRICE RANGE OF COMMON STOCK

The following table sets forth the range of high and low closing sales prices of the Company's Common Stock for the indicated periods, as reported by The Nasdaq National Market. On April 18, 1995, the last reported sale price for the Common Stock on The Nasdaq National Market was \$61.25 per share.

<TABLE>
<CAPTION>

Fiscal Year Ended June 30, 1993:	HIGH	LOW
<S>	<C>	<C>
First Quarter.....	\$ 9	\$7 1/8
Second Quarter.....	12 1/4	7 3/4
Third Quarter.....	14 3/4	10 5/8
Fourth Quarter.....	19 1/2	11 1/4
Fiscal Year Ended June 30, 1994:		
First Quarter.....	26 1/2	17
Second Quarter.....	28	19
Third Quarter.....	43	25 7/8
Fourth Quarter.....	43 1/4	32 1/4
Fiscal Year Ending June 30, 1995:		
First Quarter.....	51 3/4	37 1/4
Second Quarter.....	53	44 3/4
Third Quarter.....	65	46 1/2
Fourth Quarter (through April 18, 1995).....	65 1/8	60 1/2

</TABLE>

DIVIDEND POLICY

To date the Company has not declared or paid cash dividends on its Common Stock. The Board of Directors of the Company presently intends to retain all earnings for use in the Company's business and therefore does not anticipate declaring or paying any cash dividends on its Common Stock in the foreseeable future. The Company's bank credit agreement prohibits the payment of cash dividends of more than 25% of earnings available therefor and earned during the immediately preceding fiscal year.

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CAPITALIZATION

The following table sets forth the unaudited short-term debt and capitalization of the Company as of December 31, 1994, and as adjusted to give effect to the sale by the Company of the 1,500,000 shares of Common Stock offered hereby at an assumed public offering price of \$61.25 per share and the anticipated application of the net proceeds as set forth in "Use of Proceeds."

<TABLE>
<CAPTION>

	AS OF DECEMBER 31, 1994	
	ACTUAL	AS ADJUSTED
	(IN THOUSANDS)	
<S>	<C>	<C>
Short-term debt:		
Notes payable to banks.....	\$ 2,631	\$ 2,631
Mortgage loan due August 1995.....	20,000	--
Total short-term debt.....	\$ 22,631	\$ 2,631
Stockholders' equity:		
Preferred Stock, \$.001 par value, 1,000,000 shares authorized, none outstanding.....	\$ --	\$ --
Common Stock, \$.001 par value, 75,000,000 shares authorized(1), 23,224,000 shares issued and outstanding, and 24,724,000 shares issued and outstanding, as adjusted.....	23	25
Capital in excess of par value.....	151,441	238,780
Retained earnings.....	94,119	94,119
Treasury stock.....	(581)	(581)
Cumulative translation adjustment.....	423	423
Total stockholders' equity.....	245,425	332,766
Total capitalization.....	\$245,425	\$ 332,766

</TABLE>

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(1) Excludes 4,161,000 shares of Common Stock reserved for issuance under the Company's stock option and employee stock purchase plans, including 2,739,000 shares issuable upon the exercise of options outstanding as of December 31, 1994, at a weighted average exercise price of \$21.47 per share.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated financial data presented below for, and as of the end of, each of the years in the five-year period ended June 30, 1994 have been derived from the consolidated financial statements of the Company, which have been audited by Price Waterhouse LLP, independent accountants. The selected consolidated financial data presented below as of December 31, 1994, for the six month periods ended December 31, 1993 and 1994 and for each of the six quarters in the period ended December 31, 1994 have been derived from unaudited consolidated financial statements of the Company. In the opinion of management, the unaudited interim financial information has been prepared on the same basis as the audited consolidated financial statements and include all adjustments, consisting of only normal recurring adjustments, necessary to state fairly the information set forth therein. Such interim results are not necessarily indicative of future results of operations. This data should be read in conjunction with the consolidated financial statements, related notes and other financial information incorporated by reference herein. See "Incorporation of Certain Documents by Reference."

<TABLE>
<CAPTION>

	YEARS ENDED JUNE 30,					SIX MONTHS ENDED DECEMBER 31,	
	1990	1991	1992	1993	1994	1993	1994
	(IN MILLIONS, EXCEPT PER SHARE DATA)						
<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
CONSOLIDATED STATEMENT OF OPERATIONS DATA:							
Net sales.....	\$161.6	\$148.4	\$156.0	\$167.2	\$243.7	\$109.0	\$187.9
Gross profit.....	75.5	65.6	56.0	59.8	110.7	45.4	98.9
Engineering, research and development expense.....	26.3	27.1	25.9	16.3	22.4	9.7	17.0
Selling, general and administrative expense.....	31.5	33.5	35.5	32.7	48.2	21.2	38.2
Other charges.....	--	--	8.2	(.7)	--	--	25.2 (1)

</TABLE>

<S>	<C>	<C>	<C>	<C>	<C>	<C>	<C>
Income (loss) from operations.....	17.7	5.0	(13.6)	11.5	40.1	14.5	18.5
Interest income and other, net.....	1.8	1.8	1.2	1.2	2.2	.5	3.0
Interest expense.....	(.6)	(3.3)	(3.9)	(3.4)	(2.0)	(1.0)	(1.1)
Income (loss) from continuing operations before income taxes.....	18.9	3.5	(16.3)	9.3	40.3	14.0	20.4
Provision for income taxes.....	6.7	1.1	.3	2.3	10.1	3.5	6.6
Income (loss) from continuing operations.....	12.2	2.4	(16.6)	7.0	30.2	10.5	13.8
Loss (recovery) from discontinued operations.....	2.8	13.0	(2.8)	--	--	--	--
Net income (loss).....	\$ 9.4	\$ (10.6)	\$ (13.8)	\$ 7.0	\$ 30.2	\$ 10.5	\$ 13.8
Income (loss) per share from continuing operations.....	\$.67	\$.13	\$ (.90)	\$.35	\$ 1.37	\$.50	\$.58
Net income (loss) per share.....	\$.52	\$ (.57)	\$ (.75)	\$.35	\$ 1.37	\$.50	\$.58
Weighted average common and dilutive common equivalent shares.....	18.0	18.6	18.5	19.7	22.0	20.9	24.0

<TABLE>
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	AS OF JUNE 30,					AS OF
	1990	1991	1992	1993	1994	DECEMBER 31, 1994
	(IN MILLIONS)					
<S>	<C>	<C>	<C>	<C>	<C>	<C>
CONSOLIDATED BALANCE SHEET DATA:						
Cash, cash equivalents and short-term investments.....	\$ 42.1	\$ 31.3	\$ 23.7	\$ 52.4	\$139.1	\$125.5
Working capital.....	99.2	91.1	84.0	93.6	212.9	191.0
Marketable securities.....	--	--	--	--	--	17.0
Total assets.....	179.3	198.0	188.5	199.1	321.6	365.4
Notes payable and current portion of long-term debt.....	3.6	4.4	5.0	6.5	4.7	22.6
Long-term debt.....	--	24.0	24.0	20.0	20.0	--
Stockholders' equity.....	122.1	113.2	103.0	114.1	227.4	245.4

(1) During the quarter ended December 31, 1994, the Company wrote off the in-process technology acquired in the acquisition of Metrologix, Inc. resulting in a pretax charge of \$25.2 million (\$16.2 million after tax).

SELECTED CONSOLIDATED FINANCIAL DATA--(CONTINUED)

The following table presents unaudited quarterly results in dollar amounts and as a percentage of net sales for the last six quarters.

<TABLE>
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	FISCAL 1994				FISCAL 1995	
	SEPT. 30	DEC. 31	MAR. 31	JUNE 30	SEPT. 30	DEC. 31
<S>	<C>	<C>	<C>	<C>	<C>	<C>
CONSOLIDATED INCOME STATEMENT DATA:						
Net sales.....	\$ 51.9	\$57.1	\$62.6	\$72.1	\$ 83.2	\$ 104.7
Gross profit.....	20.7	24.7	29.4	35.9	42.6	56.3
Engineering, research and development expenses...	4.9	4.8	5.5	7.2	8.2	8.8
Selling, general and administrative expenses.....	9.9	11.3	12.0	15.0	16.5	21.7
Write-off of acquired in-process technology.....	--	--	--	--	--	25.2
Income from operations.....	5.9	8.6	11.9	13.7	17.9	.6
Interest income and other, net.....	.2	.3	.6	1.1	1.5	1.5
Interest expense.....	(.5)	(.5)	(.5)	(.5)	(.5)	(.6)
Income before income taxes.....	5.6	8.4	12.0	14.3	18.9	1.5
Provision for income taxes.....	1.4	2.1	3.0	3.6	6.1	.5
Net income.....	\$ 4.2	\$ 6.3	\$ 9.0	\$10.7	\$ 12.8	\$ 1.0

Net income per share.....	=====	=====	=====	=====	=====	=====
	\$.20	\$.30	\$.40	\$.45	\$.54	\$.04
Weighted average common and dilutive common equivalent shares.....	20.8	20.9	22.7	23.7	23.9	24.1

</TABLE>

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AS A PERCENTAGE OF NET SALES

<S>	<C>	<C>	<C>	<C>	<C>	<C>
Net sales.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross profit.....	39.9	43.3	47.0	49.8	51.2	53.8
Engineering, research and development expenses.....	9.4	8.4	8.8	10.0	9.9	8.4
Selling, general and administrative expenses.....	19.1	19.8	19.2	20.8	19.8	20.7
Write-off of acquired in-process technology.....	--	--	--	--	--	24.1
Income from operations.....	11.4	15.1	19.0	19.0	21.5	.6
Interest income and other, net.....	.4	.5	1.0	1.5	1.8	1.4
Interest expense.....	(1.0)	(.9)	(.8)	(.7)	(.6)	(.6)
Income before income taxes.....	10.8	14.7	19.2	19.8	22.7	1.4
Provision for income taxes.....	2.7	3.7	4.8	5.0	7.3	.4
Net income.....	8.1%	11.0%	14.4%	14.8%	15.4%	1.0%

</TABLE>

RECENT QUARTERLY RESULTS

The Company reported net sales of \$118.1 million, net income of \$20.8 million and earnings per share of \$.86 for the quarter ended March 31, 1995 compared to net sales of \$62.7 million, net income of \$9.0 million and earnings per share of \$.40 for the same quarter in 1994. Sales of Company products increased in all product divisions while gross margin increased to 54.1% in the 1995 quarter compared to 46.8% in the prior year period. A favorable product mix, cost reductions and improving overhead absorption accounted for the improvement in gross margin.

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BUSINESS

KLA is the leader in the design, manufacture, marketing and service of yield management and process monitoring systems for the semiconductor industry. KLA believes that it is the world's largest supplier to the wafer, reticle and optical metrology inspection equipment markets. KLA's systems are used to analyze product and process quality at critical steps in the manufacture of integrated circuits, and to provide feedback so that fabrication problems can be identified, addressed and contained. This understanding of defect sources and how to contain them enables semiconductor manufacturers to increase yields. Quickly attaining and then maintaining high yields is one of the most important determinants of profitability in the semiconductor industry. The Company believes that its customers typically experience rapid paybacks on their investments in the Company's systems. The Company sells to virtually all of the world's semiconductor manufacturers and has achieved very high market shares in its principal businesses.

YIELD MANAGEMENT

Maximizing yields, or the number of good die per wafer, is a key goal of modern semiconductor manufacturing. Higher yields increase the revenue a manufacturer can obtain for each semiconductor wafer processed. As line width geometries decrease, yields become more sensitive to the size and density of defects. Semiconductor manufacturers use yield management and process monitoring systems to improve yields by identifying defects, by analyzing them to determine process problems, and, after corrective action has been taken, by monitoring subsequent results to ensure that the problem has been contained. Monitoring and analysis may take place at many points in the fabrication process as wafers move through a production cycle consisting of hundreds of separate process steps.

Semiconductor factories are increasingly expensive to build and equip. Yield management and process monitoring systems, which typically represent a small percentage of the total investment required to build and equip a fabrication facility, enable integrated circuit manufacturers to leverage these expensive facilities and improve their returns on investment.

The most significant opportunities for yield improvement generally occur when production is started at new factories and when new products are first built. Equipment that helps a manufacturer to increase yields quickly when

products are new enables the manufacturer to offer products in volume at the time when they are likely to generate the greatest profits.

The following are some of the methods used to manage yield; they all require the capture and analysis of data gathered through many measurements:

- Engineering analysis is performed off the manufacturing line to identify and analyze defect sources. Engineering analysis equipment operates with very high sensitivity to enable comprehensive analysis of wafers. Because they operate off-line, engineering analysis systems do not require high speeds of operation.
- In-line monitoring is used to review the status of circuits during production steps. Information generated is used to determine whether the fabrication process steps are within required tolerances and to make any necessary process adjustments in real-time before wafer lots move to subsequent process stations. Because the information is needed quickly to be of greatest value, in-line monitoring requires both high throughput and high sensitivity.
- Pass/fail tests are used at several steps in the manufacturing process to evaluate products. For example, a pass/fail test is used to determine whether reticles used in photolithography are defect-free; electrical pass/fail testing is performed at the end of the manufacturing process to determine whether products meet performance specifications.

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KLA STRATEGY

KLA is the premier supplier of yield management and process monitoring systems to the semiconductor manufacturing industry. Key elements of KLA's strategy are as follows:

- Leadership in Yield Management. The Company believes that yield management requires both the ability to identify defects and the ability to use defect data: (i) to recognize patterns which reveal process problems; and (ii) to resolve and contain process flaws which are causing reduced yields. The Company has developed yield management solutions that consist of sophisticated defect detection sensors located at key steps in the production process, as well as analysis stations with relational database software that enable isolation of defect sources, identification of problem causes and implementation of corrective action.

The Company believes that its world-wide organization of more than 50 applications engineers provides an important competitive advantage. These applications engineers serve as yield management consultants to the Company's customers, assisting in applying KLA's systems to accelerate yield improvement and achieve real-time process control.

- Expansion of In-Line Monitoring Market. Several years ago, the Company recognized the industry's need for in-line monitoring to provide real-time process management capability. Prior to the introduction of KLA's 2100 series, no suppliers' products were capable of both the speed and the sensitivity needed for in-line inspection for all defect types at critical process steps. In-line inspection is a critical yield enhancement and cost reduction technique because it allows defect detection in real-time rather than waiting until after final test results become available to discover problems that have a significant yield impact. In response, the Company devoted substantial resources to developing systems with the throughput, reliability and associated data analysis capabilities for in-process inspection. During the past several years, customers' use of the Company's wafer inspection systems began evolving from single system, off-line engineering analysis applications to multiple systems monitoring critical steps directly on advanced fabrication lines. As a result of these advantages, most of the Company's customers are adopting the KLA methodology of installing multiple systems directly monitoring critical steps in the integrated circuit manufacturing process. The Company believes that the market for in-line monitoring systems is several times larger than its traditional market for engineering analysis systems.
- Development of New Technologies for Integrated Yield Management. KLA's strategy is to leverage its technology leadership to develop new hardware and software yield management tools. The Company has committed significant resources to the internal development of yield management technologies. KLA has also acquired technologies that it believes will be critical to enhancing its long-term competitive position. In fiscal 1995, the Company expanded its product offerings to include yield management software, through its recently formed PRISM division, and E-Beam metrology applications through the December 1994 acquisition of Metrologix, Inc. The Company's long-term strategy is to link information from its new and existing products, as well as from measurement systems manufactured by others, to form an integrated network of detection and analysis systems.

KLA's systems are developed to work together to offer its customers integrated yield management solutions rather than stand-alone tools. KLA offers inspection systems for key steps in the semiconductor manufacturing process and analysis systems comprised of database management hardware and software to translate raw inspection data into patterns which reveal process problems. The Company's wafer inspection and metrology systems are used for engineering analysis and in-line monitoring, and its reticle inspection systems and wafer probers are used for pass/fail tests. The Company's software productivity and analysis systems collect, store and analyze data collected by test equipment manufactured both by the Company and by others to provide semiconductor manufacturers with an integrated yield management application. The Company's principal business units are: Wafer Inspection Systems (WISARD); Reticle Inspection Systems

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(RAPID); Metrology, including Optical Metrology and E-Beam Metrology; Wafer Probing Systems (ATS); Software Productivity and Analysis Systems (PRISM); and Scanning Electron Microscope Inspection Systems (SEMSpec).

WISARD -- WAFER INSPECTION SYSTEMS

KLA's WISARD business unit created the market for automated inspection of semiconductor wafers with the introduction of the KLA 2000 series over ten years ago. KLA continues to have a predominant market share with its current generation of wafer inspection systems, the 2100 series.

KLA's 2100 series, combined with a dedicated defect data gathering and analysis workstation, the KLA 2552, and an off-line Review Station, the KLA 2608, provide semiconductor manufacturers with a yield management system sensitive enough for engineering analysis and fast enough for in-line monitoring of the semiconductor manufacturing process. The 2100 series of inspection systems offers an increase in inspection speed of up to 2,000 times over that of KLA's original wafer inspection system. This marked increase in speed and sensitivity allows customers to obtain very prompt feedback on process status by placing wafer inspection systems on the production line.

The selection of the technology architecture for the 2100 series was made to allow the base unit to support a family of products capable of performance enhancements through upgrades of various subsystems. The first model, the KLA 2110, was introduced in 1991 with sufficient speed and sensitivity to enable in-line inspection of repeating arrays typical in memory devices. One year later, in 1992, KLA introduced a new repeating array model, the KLA 2111, which operates at up to five times the speed of the KLA 2110 and has improved sensitivity.

Shortly thereafter in 1992, KLA introduced the KLA 2130 which is capable of "all pattern" inspection required for microprocessors and other logic devices as well as both the logic and repeating array portions of memory devices. In late 1993, KLA introduced the 2131 model for all pattern inspection which operates at up to twice the speed of the KLA 2130 and with higher sensitivity. The Company believes that there are further opportunities to expand the 2100 series family of systems and has several new models under development.

To manage defect data, KLA offers the KLA 2552 Analysis Station, a multi-user work station using a relational database for storing defect coordinates and digitized images. Defect analysis and image review operates through a WindowsTM-based interface. The KLA 2552 incorporates an open architecture which consolidates data from inspection systems, review stations, wafer sort electrical testers, host computers, and scanning electron microscopes (SEMs). The data analysis software provides statistical process control reports, defect source analysis, and automated correlation of in-line process defects to bit failures. The graphical software combines both data and image to produce wafer maps, trend charts, and video review. When coupled with an optional remote terminal, the KLA 2552 permits process engineers in remote locations to link to the database of defect records and images to perform further analyses or compare data from different wafer fabrication facilities.

The KLA 2608 Review Station provides a platform for reviewing and classifying defects detected on KLA and non-KLA wafer inspection systems. An operator may append classification codes to the defect record, a record which also includes wafer number, die coordinates, defect location, and defect size.

The average selling prices of KLA's 2100 series of wafer inspection systems range from approximately \$1 million to approximately \$2 million.

RAPID -- RETICLE INSPECTION SYSTEMS

RAPID, KLA's first business unit, created the market for automated inspection of reticles and photomasks for the semiconductor manufacturing industry over 16 years ago, and continues to have a predominant market share. KLA has delivered over 700 reticle and photomask inspection systems worldwide.

During photolithography, a stepper projects a circuit pattern from a reticle onto a wafer. Error-free reticles are the first step in ensuring high yields in the manufacturing process because defects in reticles can translate into millions of ruined die.

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In 1992, KLA introduced its new generation of reticle inspection systems, the 300 series. The KLA 301 Reticle Inspection System and the KLA 30 Reference Data Computer together form the KLA 331 Inspection System which represents a major advance in speed, sensitivity and flexibility. The KLA 331 offers the highest inspection sensitivity available in the market place, which the Company believes is vital to meet reticle inspection requirements for today's more complex microprocessors and larger DRAMs. This dedicated image processor employs a flexible system architecture which permits future upgrades and enhancements through software, rather than hardware changes. Further, the KLA 331's optics include a rotating telescope turret to provide three sensitivities in one system. The KLA 331 offers flexibility for users who need a versatile inspection system to address the inspection needs of both the most demanding and the more routine semiconductor manufacturing processes. Users may select lower sensitivity inspections in return for higher throughput.

The KLA 331 incorporates a reference database generator and data preparation system which give full die-to-database functionality to the inspection, permitting reticle inspection against the ideal schematic as specified by the user's circuit design CAD program. The Company is continuing to develop enhancements to the KLA 331 inspection system to improve serviceability and reliability.

The Company recently introduced a new reticle inspection product, STARlight, which uses reflected and transmitted light detection techniques simultaneously to identify reticle contaminants, including particles. STARlight permits users to identify defects which had previously not been detectable. The Company believes STARlight will be applied both by mask manufacturers and semiconductor manufacturers. STARlight is offered both as an option on the KLA 331 inspection system and as a stand-alone unit.

The average selling prices of the KLA 331 inspection systems range from approximately \$1.4 million to approximately \$2.6 million.

METROLOGY DIVISION

Optical Metrology Systems. Lithography for sub-micron semiconductor fabrication requires increasingly stringent overlay and critical dimension tolerances. In particular, decreasing line widths, larger die sizes, and additional layers have made overlay mis-registration errors a crucial cause of yield loss. To address these challenges, KLA offers the KLA 5000 series metrology systems: the 5100 for overlay; and the 5015 for both overlay and critical dimension measurement. KLA estimates that during its fiscal 1993 and 1994, it had the leading share in the worldwide market for overlay registration systems.

The KLA 5000 series uses a patented coherence probe microscopy technology which permits fast autofocus and precision critical dimension measurements. Applying its expertise in digital image processing, KLA has developed sophisticated measurement algorithms that are tolerant of process variations. With coherence probe microscopy, the system scans the image-forming coherence region through the wafer plane, only gathering information from in-focus surfaces. As a result, measurements are more tolerant of process and substrate reflectivity variations than those from ordinary optical systems.

The precision measurements from the KLA 5000 series identify the magnitude and direction of overlay mis-registration errors arising from the stepping process and from optical distortion inherent in the stepper lens. Based upon these measurements, users can fine-tune the stepper program to compensate for these errors, and improve process yield.

The disk drive manufacturing industry is an emerging market for KLA's metrology systems. Disk drive manufacturers use a semiconductor photolithography process to produce thin film heads. The Company's coherence probe technology is particularly well-suited to handle the complex topography characteristics encountered in the thin film head process. The Company believes that its solution to these requirements has allowed it to achieve the major share of the thin film head metrology market.

The average selling prices of KLA's optical metrology systems for the semiconductor industry range from approximately \$300,000 to approximately \$550,000 and systems for the disk drive industry range from approximately \$500,000 to approximately \$900,000.

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E-Beam Metrology Systems. KLA broadened its portfolio of metrology products in December 1994 with the acquisition of Metrologix, Inc., a

manufacturer of advanced electron beam measurement equipment. With this acquisition, KLA's E-Beam Metrology business gained an established position in the CD SEM inspection market, a market which KLA believes is larger than the optical overlay market, and one which it believes will grow as semiconductor manufacturers continue to produce more complex semiconductor devices.

KLA's first generation E-Beam metrology system features high throughput and automated setup. One major U.S. memory manufacturer and two major U.S. microprocessor manufacturers have purchased multiple systems for use in both production and research and development. KLA anticipates increasing its expenditures for engineering and manufacturing to enhance the capabilities of the E-Beam metrology system.

The average selling prices of KLA's E-Beam metrology systems range from approximately \$1.1 million to approximately \$1.4 million.

ATS DIVISION -- WAFER PROBING SYSTEMS

The ATS division sells and services a family of automated wafer probers and accessories which position individual semiconductor devices still in wafer form under electrical test probes. The probers work in conjunction with electronic parametric and functional testers to perform fully automated tests of the performance of completed die before the wafers are diced and packaged. The electrical test procedure also identifies failed die, classifies die by performance and generates a database of test results for use in process control.

KLA develops, manufactures and markets these products in cooperation with TEL, the leading distributor of semiconductor equipment in Japan. KLA develops and manufactures the prober's image processing electronics and optical subsystems. TEL manufactures the prober's mechanical chassis and incorporates the KLA electronics and subsystems. The ATS division sells the integrated prober systems in the United States and Europe with its own control software and custom interfaces. TEL sells and services the integrated prober systems in Japan and the rest of Asia.

The average selling prices of KLA's basic wafer prober systems range from approximately \$130,000 to approximately \$600,000.

PRISM DIVISION -- SOFTWARE PRODUCTIVITY AND ANALYSIS SYSTEMS

The PRISM division was formed in April 1994 to address the market for software products that can be utilized in semiconductor fabrication applications for yield management and productivity improvement. The PRISM division is developing and marketing two software product lines, Discovery and CIMA. Discovery is an enterprise-wide yield management system that collects, stores and correlates yield information from multiple data sources in a fabrication facility. This product was the result of a cooperative development project with Motorola. The Company expects to release production versions of Discovery in early fiscal 1996. CIMA is a test floor automation product that was developed by the Company and introduced in August 1994. CIMA collects test data from, and automates the operation of, the wafer test floor. CIMA is currently in production and is installed in several modern fabrication facilities. PRISM has formed a client services organization to provide system integration and consulting services to assist its customers in the integration of its software products into the facility's information systems.

SEMSPEC -- SCANNING ELECTRON MICROSCOPE INSPECTION SYSTEMS

As feature sizes of semiconductor circuits continue to decrease for leading edge semiconductor products, the Company believes that conventional optical technologies ultimately will begin to reach physical limits imposed by the wavelength of light and fail to provide the necessary inspection resolution. Working closely with those customers with the most advanced inspection requirements, KLA has developed the world's only fully automatic electron beam inspection systems. These systems, comprised of the world's fastest scanning electron-optical column and a high speed image computer, are used for wafer and x-ray mask inspection. The development of these systems was funded in part by customer-sponsored research and development programs.

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KLA has sold four of these systems to customers. KLA expects the market for these inspection systems to emerge slowly.

TECHNOLOGY

KLA's inspection and metrology systems precisely capture trillions of features on wafers and reticles that are as small as 10 millionths of an inch on a side and analyze each of these features for possible defects through the use of the following technologies:

Image Acquisition. KLA's systems acquire images of sub-micron features on wafers and reticles. The quality and brightness of the images greatly influence the speed and sensitivity of the final inspection system. KLA has developed a wide range of optical imaging systems, such as laser scanners, interference

microscope systems, and conventional white light and deep UV optical systems. To satisfy the future sensitivity requirements of advanced lithography, KLA has already developed an electron beam system which incorporates the world's fastest scanning electron-optical column.

Image Conversion. The Company's equipment converts the photon or electron image to an electronic digital format. KLA has been a pioneer in the use of time-delay-integration sensors that convert as many as 100 million pixels (picture elements) to 256-level gray scale images each second. KLA also utilizes other image conversion technologies such as avalanche diode detectors, photo multiplier systems, and fixed frame pickups.

Precision Mechanics. In the most common configuration of an inspection system, the reticle or the wafer is moved at a constant speed through the field of the imaging system. Since areas of interest are as small as 5 millionths of an inch, and vibrations in the scanning system of one-tenth of the area of interest can degrade system performance, the mechanical stage must be extremely smooth and precise. To address these requirements, KLA has eight years experience in the design and manufacture of air-bearing linear drive stages.

Proprietary Algorithms. To perform the inspection or measurement task, the Company's equipment examines the properties of the digitized images using a set of logical steps (algorithms) which measure the desired image property. KLA's engineers develop sets of algorithms that are specifically tailored to obtain optimum performance for its wafer, reticle and metrology systems. These algorithms are largely responsible for the state-of-the-art performance of KLA's systems.

Image Computers. The combination of proprietary algorithms and special purpose computers allows KLA's equipment to have a high performance to cost ratio. While general purpose computers are capable of executing KLA's algorithms, very few computer architectures can sustain the computing speed that is required in KLA's systems. To address this requirement, KLA develops and builds special purpose image computers designed to execute its algorithms.

Database Analysis. Many of the inspections that KLA reticle inspection systems perform require a digital image representation of the ideal pattern obtained from the data used to manufacture the reticle. This capability allows inspection systems to compare the actual circuit with its design specifications. KLA has been developing database systems for over 15 years to satisfy this objective. Its present generation of special purpose database computers is capable of generating simulated images at the same high speeds at which KLA's image conversion systems generate the digital image from the actual reticle.

Statistical Process Control. Integrated circuit yield management and process monitoring systems generate hundreds of thousands of data items each day. To enhance the utility of these data, KLA has a team of software engineers who build systems containing statistical process control software to simplify data and present these data in a useful manner. KLA is continuing to work on new software to enhance its statistical process control systems.

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CUSTOMERS

The Company believes that it is one of the few suppliers that sells its systems to virtually all of the world's semiconductor manufacturers. In fiscal 1992 and 1994, no single customer accounted for more than 10% of the Company's revenues. During fiscal 1993, Motorola accounted for approximately 11% of the Company's revenues. During the nine months ended March 31, 1995, Samsung accounted for approximately 10% of the Company's revenues. Set forth below is a list of some of the Company's customers:

<TABLE>	<S>	<C>	<C>
	AMD	IDT	Rockwell
	AT&T	Intel	Rohm
	Bosch	Matsushita	Samsung
	Cypress	Micron	SGS-Thompson
	Digital Equipment	Mitsubishi	Sharp
	DNP Micro	Motorola	Siemens
	Du Pont	National Semiconductor	Sony
	Fujitsu	NEC	TEL
	Goldstar	NKK	Texas Instruments
	Hewlett-Packard	Nippon Denso	Toppan
	Hitachi	NTT	Toshiba
	Hoya	Oki	TSMC
	Hyundai	Photronics	UMC
	IBM	Ricoh	

SALES, SERVICE AND MARKETING

The Company sells products through a combination of direct sales and distribution channels. The Company believes that the size and location of its

field sales, service and applications engineering organization represents a significant competitive advantage in its served markets. In the United States, Europe and Korea, the Company has a direct sales force located in major geographical markets. Sales, service and applications facilities throughout the world employ over 400 sales, service and applications engineers.

In Japan, the Company sells systems for the semiconductor market through TEL. TEL has been the Company's distributor to the Japanese semiconductor market since 1978. The sales effort in Japan is supported by KLA Japan, which provides marketing, applications support, technical support and service to Japanese customers. Over the last three years, the Company significantly increased its customer service organization in Japan in order to assume service and support responsibilities from TEL. KLA Japan has over 120 local employees in its Yokohama headquarters and four regional service centers.

In Singapore and Taiwan, the Company sells its systems through local sales representatives.

RESEARCH AND DEVELOPMENT

The market for yield management and process monitoring systems is characterized by rapid technological development and product innovation. The Company believes that continued and timely development of new products and enhancements to existing products are necessary to maintain its competitive position. Accordingly, the Company devotes a significant portion of its personnel and financial resources to research and development programs and seeks to maintain close relationships with customers to remain responsive to their needs. In order to meet continuing developments in the semiconductor industry and to broaden the applications for its image processing technology, the Company is committed to significant engineering efforts for product improvement and new product development. Approximately 20% of the Company's workforce is engaged in engineering, research and development.

MANUFACTURING

The Company's principal manufacturing activities take place in San Jose, California; Bevaix, Switzerland; and Migdal Ha'Emek, Israel; and consist primarily of assembling and testing components and

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subassemblies which are acquired from third party vendors and then integrated into the Company's finished products. In April 1995, the Company began construction of an additional manufacturing facility on undeveloped land at its San Jose campus facility. The Company is also evaluating the lease of additional facilities adjacent to its San Jose campus. The Company is also cross-training personnel, so that it can respond to changes in product mix by reallocating personnel in addition to hiring.

The Company has been working with key vendors to improve inventory management. Volume purchase agreements and just-in-time delivery schedules have reduced both inventory levels and costs. The Company's manufacturing engineers, in conjunction with key vendors, are improving the manufacturability and reliability of the new wafer and reticle inspection systems.

Many of the components and subassemblies are standard products, although certain items are made to Company specifications. Certain of the components and subassemblies included in the Company's systems are obtained from a single source or a limited group of suppliers. Those parts subject to single or limited source supply are routinely monitored by management and the Company endeavors to ensure that adequate supplies are available to maintain manufacturing schedules, should supply for any part be interrupted. Although the Company seeks to reduce its dependence on sole and limited source suppliers, in some cases the partial or complete loss of certain of these sources could have at least a temporary adverse effect on the Company's results of operations and damage customer relationships.

COMPETITION

The market for yield management and process control systems is highly competitive. In each of the markets it serves, the Company faces competition from established and potential competitors, some of which may have greater financial, engineering, manufacturing and marketing resources than the Company. Significant competitive factors in the market for yield management and process control systems include system performance, ease of use, reliability, installed base and technical service and support.

The Company believes that, while price and delivery are important competitive factors, the customers' overriding requirement is for systems which easily and effectively incorporate automated, highly accurate inspection capabilities into their existing manufacturing processes, thereby enhancing productivity. The Company's yield management and process control systems for the semiconductor industry are generally higher priced than those of its present competitors and are intended to compete based upon performance and technical capabilities. These systems also compete with less expensive, more

labor-intensive manual inspection devices.

The Company's wafer and reticle inspection systems have a predominant share of their markets. The Company is the leading provider of overlay registration systems. The Company believes it is the second largest supplier of wafer prober systems in the U.S. and Europe.

Many of the Company's competitors are investing in the development of new products aimed at applications currently served by the Company. The Company's competitors in each product area can be expected to continue to improve the design and performance of their products and to introduce new products with competitive price/performance characteristics. Competitive pressures often necessitate price reductions which can adversely affect operating results. Although the Company believes that it has certain technical and other advantages over its competitors, maintaining such advantages will require a continued high level of investment by the Company in research and development and sales and marketing. There can be no assurance that the Company will have sufficient resources to continue to make such investments or that the Company will be able to make the technological advances necessary to maintain these competitive advantages.

The yield management and process control industry is characterized by rapidly changing technology and a high rate of technological obsolescence. Development of new technologies that have price/performance characteristics superior to the Company's technologies could adversely affect the Company's results of operations. In order to remain competitive, the Company believes that it will be necessary to expend substantial effort on continuing product improvement and new product development. There can be no assurance that the Company will be able to develop and market new products successfully or that the products introduced by others will not render the Company's products or technologies non-competitive or obsolete.

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DESCRIPTION OF CAPITAL STOCK

The Company's authorized capital stock consists of 75,000,000 shares of common stock, \$.001 par value ("Common Shares"), 74,000,000 of which are designated "Common Stock" and 1,000,000 of which are designated "Junior Common Stock," and 1,000,000 shares of preferred stock, \$.001 par value ("Preferred Stock"). As of December 31, 1994, there were 23,224,000 shares of Common Stock, no shares of Junior Common Stock, and no shares of Preferred Stock outstanding.

COMMON STOCK

The holders of the Common Stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Stockholders are not entitled to cumulative voting for the election of directors. Subject to preferences applicable to any outstanding Preferred Stock, the holders of Common Stock are entitled to receive ratably such dividends as may be declared from time to time by the Board of Directors out of funds legally available therefor and in the event of liquidation, dissolution, or winding up of the Company, the holders of Common Stock are entitled to share in all assets remaining after payment of liabilities. The Common Stock has no preemptive or conversion rights and is not subject to further calls or assessments by the Company. There are no redemption or sinking fund provisions applicable to the Common Stock. The Common Stock currently outstanding is, and the Common Stock offered hereby will be, validly issued, fully paid, and non-assessable.

JUNIOR COMMON STOCK

The Board of Directors of the Company has the authority to issue the Junior Common Stock in one or more series and to fix the rights, preferences and privileges, including dividend rights, conversion rights, liquidation rights, voting rights, and the number of shares constituting any series or the designation of such series of Junior Common Stock, without any further vote or action by the stockholders. As of the date of this Prospectus, there are no outstanding shares of Junior Common Stock, or options to purchase Junior Common Stock. Although it has no present intention to do so, the Board of Directors of the Company may, without stockholder approval, issue Junior Common Stock with voting and conversion rights which could adversely affect the voting power of the holders of Common Stock. The issuance of Junior Common Stock may have the effect of delaying, deferring, or preventing a change of control of the Company.

PREFERRED STOCK

The Board of Directors of the Company has the authority to issue the Preferred Stock in one or more series and to fix the rights, preferences and privileges, including dividend rights, conversion rights, liquidation rights, voting rights, and the number of shares constituting any series or the designation of such series of Preferred Stock, without any further vote or action by the stockholders. As of the date of this Prospectus, there are no outstanding shares of Preferred Stock, or options to purchase Preferred Stock.

Although it has no present intention to do so, the Board of Directors of the Company may, without stockholder approval, issue Preferred Stock with voting and conversion rights which could adversely affect the voting power of the holders of Common Stock. The issuance of Preferred Stock may have the effect of delaying, deferring, or preventing a change of control of the Company.

STOCKHOLDER RIGHTS PLAN

KLA has a stockholder rights plan (the "Plan") to protect the value of KLA stockholders' investment in the Company. Pursuant to the Plan, the Board has declared a dividend distribution of one Common Stock purchase right (a "Right"), at an exercise price of \$100.00, on each outstanding share of its Common Stock. In the event of certain hostile efforts to acquire control of the Company, the Plan would entitle holders of each Right to purchase stock in KLA or an acquiror of KLA with a market value equal to twice the exercise price of the Right. The Rights have certain anti-takeover effects as they will cause substantial dilution to a person or group that attempts to acquire the Company on terms or in a manner not approved by the Company's Board of Directors, except pursuant to an offer conditioned upon the negotiation, purchase or redemption of the Rights.

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The Board may redeem the Rights for \$.01 per Right at any time prior to the day a person or group acquires 20% or more of the Company's stock without Board approval. After such date, the Board may redeem the Rights prior to the consummation of a business combination in which all holders of Common Stock are treated equally and which does not involve such 20% stockholder. The Company may, except with respect to the redemption price, amend the Rights in any manner. After a person becomes a 20% stockholder, the Company may amend the Rights in any manner which does not adversely affect the interests of the holders of the Rights.

DELAWARE TAKEOVER STATUTE

The Company is subject to the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a publicly held Delaware corporation from engaging in any "business combination" with an "interested stockholder" for three years following the date that such stockholder became an interested stockholder, unless (i) prior to such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding, those shares owned (a) by persons who are directors and also officers and (b) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or (iii) on or subsequent to such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock not owned by the interested stockholder.

Generally, a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the stockholders. An "interested stockholder" is a person who, together with affiliates and associates, owns (or within three years prior did own) 15% or more of the corporation's voting stock.

TRANSFER AGENT AND REGISTRAR

The Transfer Agent and Registrar for the Common Stock is First National Bank of Boston, Mail Stop 45-02-16, Blue Hills Office Park, 150 Royale Street, Canton, Massachusetts 02021.

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UNDERWRITERS

Under the terms and subject to the conditions contained in an Underwriting Agreement dated the date hereof, each of the Underwriters named below has severally agreed to purchase, and the Company has agreed to sell to them, the respective number of shares of Common Stock set forth opposite their respective names below:

<TABLE>
<CAPTION>

NAME	NUMBER OF SHARES
-----	-----
<S>	<C>
Morgan Stanley & Co. Incorporated.....	500,000

PaineWebber Incorporated.....	500,000
Smith Barney Inc.	500,000

Total.....	1,500,000
	=====

</TABLE>

The Underwriting Agreement provides that the obligations of the several Underwriters to pay for and accept delivery of the shares of Common Stock offered hereby are subject to the approval of certain legal matters by their counsel and to certain other conditions. The Underwriters are obligated to take and pay for all of the shares of Common Stock offered hereby (other than those covered by the over-allotment option described below) if any such shares are taken.

The Underwriters initially propose to offer part of the shares directly to the public at the public offering price set forth on the cover page hereof and part to certain dealers at a price that represents a concession not in excess of \$ per share under the public offering price. Any Underwriter may allow, and such dealers may reallow, a concession not in excess of \$ per share to other Underwriters or to certain other dealers.

The Company has granted to the Underwriters an option, exercisable for 30 days from the date of this Prospectus, to purchase up to an additional 225,000 shares of Common Stock at the public offering price set forth on the cover page hereof, less underwriting discounts and commissions. The Underwriters may exercise such option solely for the purpose of covering over-allotments, if any, made in connection with this offering. To the extent such option is exercised, each Underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of such additional shares as the number set forth next to such Underwriter's name in the preceding table bears to the total number of Shares offered hereby.

The Company and the Underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act of 1933, as amended (the "Securities Act").

Certain officers and directors of the Company owning an aggregate of approximately 1,200,000 shares of Common Stock have agreed with the Underwriters that, for a period of 90 days after the date of this Prospectus, they will not directly or indirectly (i) offer, sell or otherwise dispose of more than an aggregate of 100,000 shares of Common Stock, or securities convertible into or exchangeable for, or rights to purchase or acquire, shares of Common Stock, or (ii) individually offer, sell or otherwise dispose of more than 50,000 such shares, securities or rights, in each case without the prior written consent of Morgan Stanley & Co. Incorporated. In addition, the Company has agreed in the Underwriting Agreement that, for a period of 90 days after the date of this Prospectus, it will not, without the prior written consent of Morgan Stanley & Co. Incorporated, offer, sell, contract to sell or otherwise dispose of any shares of Common Stock or any securities convertible into or exchangeable for Common Stock, except pursuant to existing options or warrants or the conversion of existing securities.

In connection with this offering, certain Underwriters and selling group members (if any) or their respective affiliates who are qualified registered market makers on The Nasdaq National Market, may engage in passive market making transactions in the Common Stock on The Nasdaq National Market in accordance with Rule 10b-6A under the Exchange Act during the two business day period before commencement of offers or sales of the Common Stock. The passive market making transactions must comply with applicable volume and price limits and be identified as such. In general, a passive market maker may display its bid at a price not in excess of the highest independent bid for the security; if all independent bids are lowered below

the passive market maker's bid, however, such bid must then be lowered when certain purchase limits are exceeded.

LEGAL MATTERS

Gray Cary Ware & Freidenrich, a Professional Corporation, Palo Alto, California, counsel to the Company, will render an opinion that the shares offered hereby will be duly authorized, validly issued, fully paid and nonassessable. Certain legal matters in connection with the Offering, will be passed upon for the Underwriters by Morrison & Foerster, San Francisco, California.

EXPERTS

The consolidated financial statements as of June 30, 1993 and 1994 and for each of the three years in the period ended June 30, 1994 incorporated by reference in this Prospectus have been so included in reliance on the report of Price Waterhouse LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

AVAILABLE INFORMATION

The Company has filed with the Commission a Registration Statement on Form S-3 (referred to herein, together with all amendments and exhibits, as the "Registration Statement") under the Securities Act, with respect to the securities offered by this Prospectus. This Prospectus does not contain all of the information set forth in the Registration Statement, certain parts of which have been omitted in accordance with the rules and regulations of the Commission. For further information with respect to the Company and the securities offered hereby, reference is made to the Registration Statement. Statements made in this Prospectus as to the contents of any contract or other document referred to herein are not necessarily complete and, in each instance in which a copy of such contract is filed as an exhibit to the Registration Statement, reference is made to such copy and each such statement shall be deemed qualified in all respects by such reference. Copies of the Registration Statement may be inspected, without charge, at the offices of the Commission, or obtained at prescribed rates from the Public Reference Section of the Commission at the address set forth below.

The Company is subject to the informational requirements of the Exchange Act, and in accordance therewith files reports, proxy statements and other information with the Commission. Such reports, proxy statements and other information filed by the Company can be inspected and copied at the public reference facilities of the Commission located at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549 and at the Commission's regional offices at Seven World Trade Center, New York, New York 10048 and Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. Copies of such material also can be obtained from the Public Reference Section of the Commission at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. The Company's Common Stock is quoted for trading on The Nasdaq National Market and reports, proxy statements and other information concerning the Company may be inspected at the offices of the National Association of Securities Dealers, Inc., 9513 Key West Avenue, Rockville, Maryland 20850.

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