current literature

The Editors present for convenient reference a list of articles dealing with subjects cognate to motion picture engineering published in a number of selected journals. Photostatic or microfilm copies of articles in magazines that are available may be obtained from The Library of Congress, Washington, D.C., or from the New York Public Library, New York, N.Y., at prevailing rates.

American Cinematographer vol. 36, Aug. 1955

The New Yellow Flame Carbons (p. 464) *C. Handley*
Set Lighting for Commercial Films (p.467) *C. Loring*
Eleven Cameras for Circarama (p. 476) *L. Allen*
New Automatic Shifting Shutter on Kodascope Pageants (p. 490)

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Exposure Determination for Variable Shutter Speeds (p. 524) *F. P. Fritz*
Pre-printing Preparation of 16mm Film (p. 531)
Innovations Highlight New S6 Magnetic Recorder (p. 536) *F. Foster*

Bild und Ton vol. 8, No. 7, July 1955

Cinemascope—der neue Breitwandfilm (p. 182)
Neuere Xenon-Lampen für Farbaufnahmen und für Projektion (p. 184) *U. Kopec*

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Stereofonie und Tonfilm Pt. 2 (p. 210) *F. Sieland*
Neuere Xenon-Lampen für Farbaufnahmen und für Projektion (*p.* 213) *U. Kopec*
Uber die Zusammenarbeit von Kameramann und Kopieranstalt Pt. 2. (p. 215) *H. Mehnert*
Grundlagen der fotomechanischen Farbkorrektur (p. 217) *E. Rupp*
Gedanken über Automatisierung in der Vorführtechnik (p. 229) *K. Poser*

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Über einige Grundfragen der elektroakustischen Musikübertragung (p. 244) *S. Mitlacher*
Über das Streulicht im Lichtspieltheater (p. 249) *H. Schering*
Wie soll man filmen?—88 Ratschlage für den 8-mm-Schmalfilmer (p. 255) *P. Shrzesny*

British Kinematography

vol. 27, No. 2, Aug. 1955

Radar Cinematography (p. 34) *J. R. F. Stewart*
Modern Cine Camera Lenses (p. 37) *G. H. Cook*

vol. 27, Sept. 1955

Film Characteristics for Television Scanning Pt. I. Flying Spot Scanners (p. 73) *T. C. Nuttall*

Electrochemical Society, Journal

vol. 102, Sept. 1955

Two Photoelectric Colorimeters for Television Picture Tubes (p. 512) *R. S. Hunter*

Film Technikum vol. 6, No. 8, Aug. 1955

Neue Typen von Schmalfilm-Projektoren (p. 225)
Das neue Bolex-Programm (p. 228)
Ton-Probleme beim 8-mm-Schmalfilm (p. 230)
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Ton-Schmalfilm-Projektor–Jungstram BM 2005C (p. 234)

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Das Movikon System im 8-mm-Film (p. 238) *D. B. Sasse*
Wohin steuert der Stereofilm (p. 240) *W. Selle*

Ideal Kinema vol. 21, Sept. 8, 1955

No Side Masking with the Supalex (p. 9)

Institute of Radio Engineers, Proceedings vol. 43, Aug. 1955

Color Television Luminance Detail Rendition (p. 918) *W. G. Gibson and A. C. Schroeder*
A New High-Efficiency Parallax Mask Color Tube (p. 936) *M. E. Amdursky*
Design of Lens-Mask Three-Gun Color Television Tubes (p. 943) *R. C. Hergenrother*

International Projectionist vol. 30, Aug. 1955

Recent Developments in Anamorphotic Systems (p. 8) *G. H. Cook*
Prevention of Damage to Prints (p. 15) *R. A. Mitchell*
New Yellow-Flame Carbons Increase Depth, Sharpness in Photographic Image (p. 20) *C. Handley*
SMPTE Color TV Test Films (p. 24)

International Projectionist vol. 30, Sept. 1955

Recent Trends in Shutter Design for Theatre and TV Projection (p. 7) *R. A. Mitchell*
Circarama: Spectacular 16-mm Presentation at Disneyland (p. 10)
A Stereophonic Sound System that Utilizes Haas Effect (p. 12) *B. P. Bogert*
Versatile New Simplex Sound Systems (p. 14)
Recent Developments in Anamorphotic Systems (p. 15) *G. H. Cook*

Kino-Technik vol. 9, Aug. 1955

Der Werdegang eines modernen Schmalfilmobjektives (p. 273) *Dr. Naumann*
Aus der Geschichte der Kinematographie Teil IV. (p. 286)

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Lichttechnik im Filmatelier. Strombedarf und Stromversorgung (p. 306) *H. Orlich*
Die Stromversorgungsanlagen der Bavaria-Filmkunst (p. 308) *K. Neitzel*
Beleuchtungsprobleme in der Praxis des Kameramannes (p. 311) *F. Lehmann*
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Sonderglühlampen für Filmscheinwerfer und Projektion (p. 314) *F. Ernst*
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Bauer B 8 B -ein neuer Kegelblenden-Kinoprojektor (p. 324)

Motion Picture Herald (Better Theatres Section) vol. 201, Oct. 1955

The Todd-AO Wide-Film System (p. 8) *G. Schutz*

Radio and Television News vol. 54, Oct. 1955

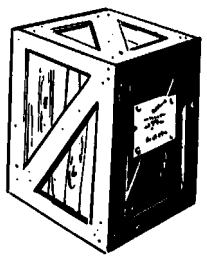
Industrial TV (p. 37) *W. H. Buchsbaum*
Width Troubles in TV Receivers (p. 56) *S. Heller*
Projection Color TV with a Color Wheel (p. 64) *J. Stanley*

Studio Review (Supplement to Kinematograph Weekly) Sept. 29, 1955

A New Debrie Camera for CinemaScope Filming (p. ix) *R. H. Cricks*

Television Magazine vol. 12, Aug. 1955

Definition of Coverage (p. 28)



new products (and developments)

Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.

To measure lenses objectively, an electronic instrument has been developed by the Radio Corp. of America, according to an announcement by M. C. Batsel, Chief Engineer of RCA Engineering Products Div., Camden, N.J. The lens-tester is described as a major advance in the optical sciences, in that it will introduce accuracy, speed and economy in pre-rating lenses of all types. It will enable the selection of lenses by specific grade, with the exact characteristics for given applications. The electronic lens-tester resulted from initial research conducted by Otto H. Schade, who has pioneered in the development of universal ratings and allied test equipment — see, for instance, Dr. Schade's article in this issue.

Heretofore, the quality of any lens, with regard to sharpness, contrast and gradation, has been determined solely by visual tests. The lens-tester has been designed to enable lens manufacturers and users to determine quickly the lens' response characteristics and apply them against mathematical optimums. Many significant properties of an image depend upon the characteristics of its star image — the image of a point source of light. The star image of an optical "circuit" has been demonstrated to be the counterpart of the impulse response of an electrical circuit. Accordingly, the mathematical relationship of electrical impulse response, frequency responses and edge transitions can be applied to compute counterpart properties of optical star images.

Major components of the developmental RCA lens-tester include a special test drum, a microscope, a multiplier phototube and an oscilloscope. The test drum has nine groups of high contrast black and white lines of different widths, ranging from 3/in. for the course group to 200/in. for the finest group. The black lines correspond to 3 to 200 TV lines/mm in the image.

To obtain the square-wave flux response of a given lens, it is made to view the test drum, which is revolved by a synchronous motor. The lens is also rotated, about its transverse axis, to test its performance off axis. The lens image of the test drum is then scanned by the multiplier phototube through a narrow slit. For a theoretically perfect lens, the contrast between black and white lines, as measured by the phototube, would be modified only by diffraction effects. With a practical lens, the contrast deteriorates as the line width decreases due to the combined effects of diffraction and aberrations, or defects. The line at which