



VARIO- ELMARIT-R f/2.8/35-70mm ASPH.

*for LEICA R-models
(all modes)*

New "High-End" Lens in the LEICA R Assortment

The new VARIO-ELMARIT-R f/2.8/ 35-70mm ASPH. is a high performance lens from Leica with a constant high speed of f/2.8 throughout the entire focal length range. It covers the range from light wide-angle to short tele and is equally suited to both the ambitious amateur and the demanding professional photographer. The bright viewfinder image of the camera, caused by the high speed, enables photography even in bad light conditions. The very short close-focusing distance of 70cm throughout the entire focal length range offers additional creative possibilities. Another interesting appli-

cation is made possible with the built-in macro-setting. With a distance of just 30cm to the subject, an image ratio of up to 1:2.8 can be achieved.

Operation

The operating elements of the VARIO-ELMARIT-R f/2.8/35-70mm ASPH. are arranged for comfortable and practical handling. The front ring of this two-ring zoom is for setting the range and the one behind is for setting the focal length. Due to the wide, rubber-armored and knurled design, both rings can be operated easily and confidently – in extreme temperature conditions and even while wearing gloves. Typical for

LEICA, the correct aperture can be set from 2.8 to 22 in half values as well.

The lens has a built-in, telescopic lens hood which shields against reflections or interfering, contrast-reducing light incidence. The front group is parallel-guided, so that filters (especially polarizing filters – E77) can be used without restriction.



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PRODUCT INFORMATION

Optical and Mechanical Precision

The heart of the new highlight is a polished optical system in connection with a new type of precision mechanics. The lens consists of 11 lens elements in 9 groups. Five of these elements are made of glass with high anomalous partial dispersion (for correction and color error) and four elements are of glass with an extremely high refraction index. Additionally, the lens has a Leica ground and polished aspherical element. All lens surfaces have an anti-reflex coating so that reflections and stray light can be reduced as much as possible.

Already at open aperture, the LEICA VARIO-ELMARIT-R f/2.8/35-70mm ASPH. shows high image performance over the entire field and throughout the complete focal length range. Contrast and resolution can be improved just slightly by stopping down. Rest image errors are hardly existent. In the tele range (70mm) the image performance near-

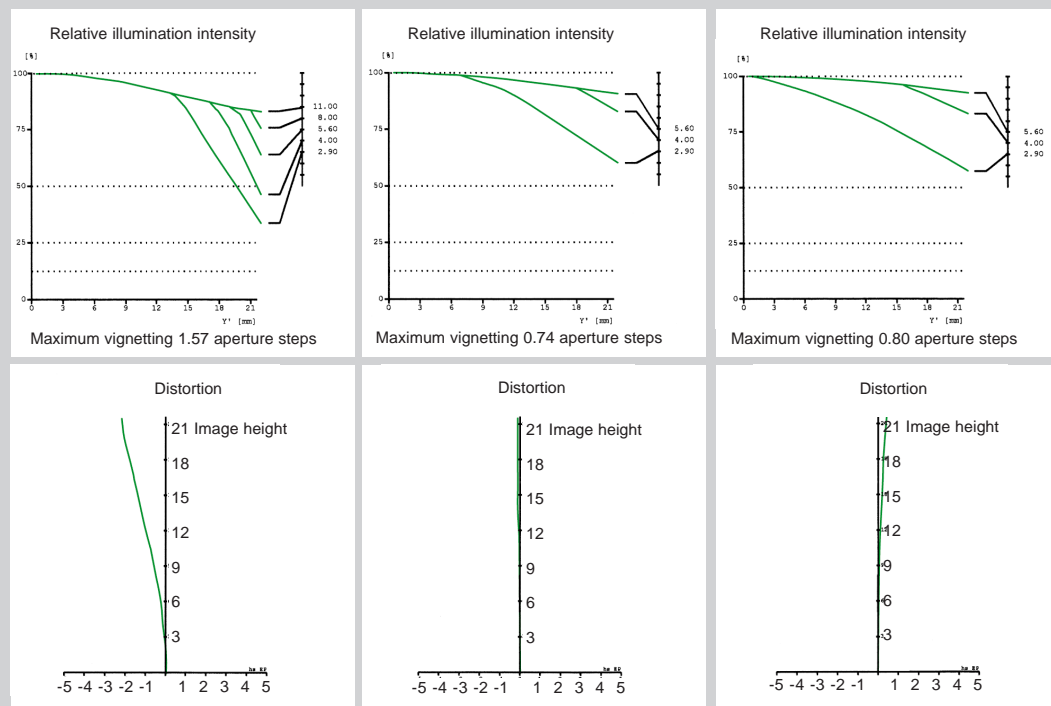
ly measures up to an apochromatic corrected system. Throughout the entire setting range, distortion (see graphic) and vignetting (see graphic: relative illumination) are slight.

When focusing and changing the focal length by shifting the lens groups, a distinct smoothness can be noticed immediately. A new type of linear guide is responsible for the velvety-smooth mobility of the whole system. This enable the high accuracy and fast-focusing as well as centering precision.



Compatibility

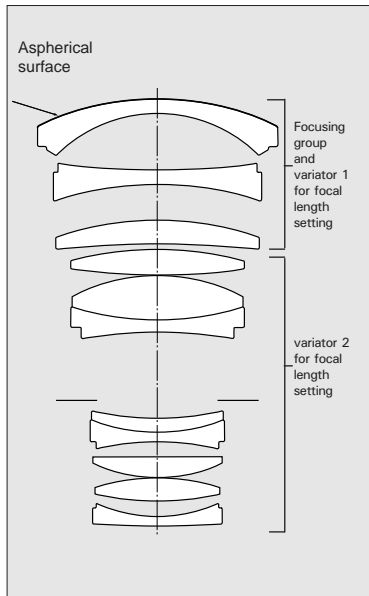
The VARIO-ELMARIT-R f/2.8/35-70mm ASPH. can be used on all LEICA R models, from R3 to R8. All operating mo-



Maximum vignetting / Distortion



LEICA



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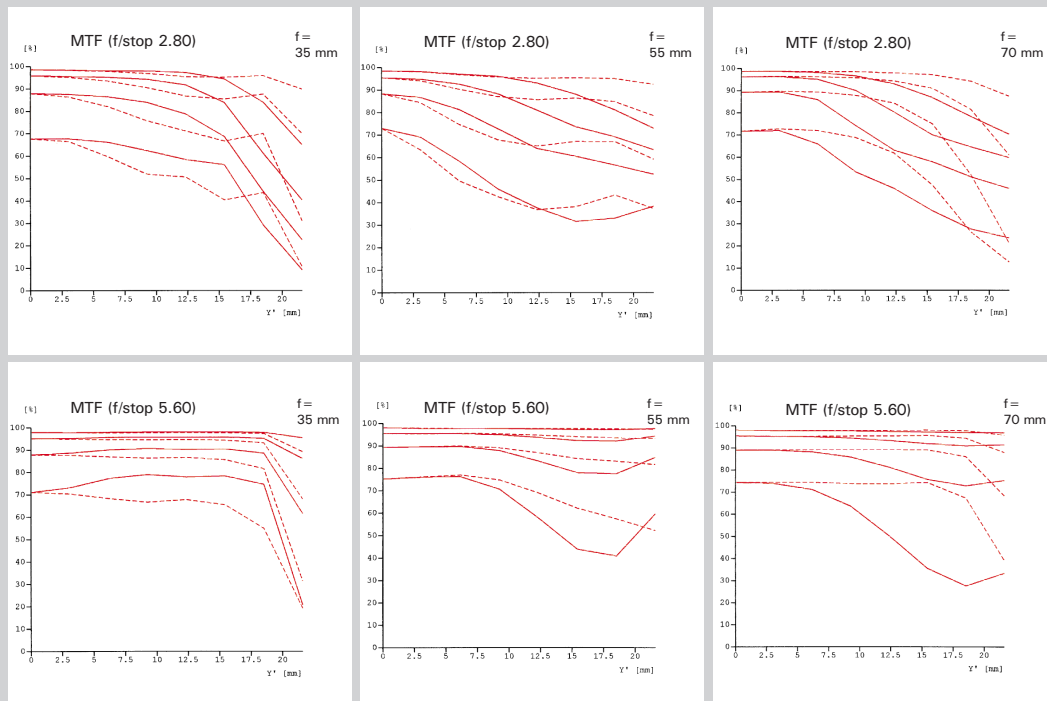
des can be used without restriction. The additional contact ledge in the bayonet is for the transfer of electronic data and signals in connec-

tion with the LEICA R8. The use of a APO-EXTENDER-R 2x or APO-EXTENDER-R 1.4x is not possible.

Conclusion

The new VARIO-ELMARIT-R f/2.8/35-70mm ASPH. provides the committed LEICA photographer with yet another

high performance lens which complements the "High -End" range sensibly. It is suited for many application fields including reportage, landscape, architecture or macro photography. Combined with the VARIO-ELMARIT-R f / 2 . 8 / 7 0 - 180mm a focal range from 35mm to 180mm can be covered with two excellent LEICA lenses.



The MTF is indicated both at full aperture and at f/5.6 respectively f/8 at long taking distances (infinity). Shown is the contrast in percentage for 5, 10, 20 and 40 lp/mm across the height of the 35 mm film format, for tangential (dotted line) and sagittal (solid line) structures, in white light. The 5 and 10 lp/mm will give an indication regarding the contrast ratio for large object structures. The 20 and 40 lp/mm records the resolution of finer and finest object structures.

— sagittal structures tangential structures



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PRODUCT INFORMATION

VARIO-ELMARIT-R f/2.8/35-70mm ASPH.

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(all modes)



VARIO-ELMARIT-R f/2.8/35-70mm ASPH.*

in a soft leather case,
with lens cap and rear cover

with mechanical shutter/
aperture balance, and,
for Leica R8, with additional
electronic shutter/aperture
balance

schwarz eloxiert

Bestell-Nr. 11 275 _____

Replacement:

Soft leather case

Bestell-Nr. 14 785 _____

Lens cap

Bestell-Nr. 14 319 _____

Rear cover

Bestell-Nr. 14 162 _____

High speed lens with variable
focal length and aspherical
lens surface

- Angle of view: 64-34°
- Number of elements: 11
in 9 components
- Filter size: E 77
- Internal thread: M 77x0,75
- Fully automatic spring
diaphragm
- Aperture preselection with
clickstops (including half
values)
- Smallest aperture: 22
- Combined meter/feet scale
- Focusing range:
infinity - 0,70m
- Smallest object field:
35mm focal length -
approx. 436 x 654mm
(approx. 1:18)
70mm focal length -
approx. 230 x 346mm
(approx. 1:10)
Macro setting -
approx. 67x101mm
(approx. 1:2,8)
- Parallel guided focusing
mount
- Leica R quick change
bayonet for Leica R3-R8
with mechanical shutter/
aperture balance, and,
for Leica R8, with additional
electronic shutter/aperture
balance
- Black anodized finish
- Lens hood: Built-in,
telescopic
- Front lens diameter: 88mm
- Length from bayonet flange:
133mm
- Largest diameter:
88mm
- Weight: approx. 1,050kg

Notices:

- Lens hood: built in
- APO-Extender R 1,4x and 2x:
The use is not possible!

* Available as beginning of 1999



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The Leica Camera Group

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