JIS

JAPANESE INDUSTRIAL STANDARD

Translated and Published by
Japanese Standards Association

JIS B 7106 : 1997

Photographic lenses—F-number marking

ICS 37.040.10

Descriptors : photographic lenses, lens apertures, marks, camera lenses, graduations

Reference number : **JIS B 7106 : 1997 (E)**

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently, JIS B 7106 : 1960 is replaced with this Standard.

Date of Establishment: 1952-03-08

Date of Revision: 1997-10-20

Date of Public Notice in Official Gazette: 1997-10-20

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Precision Machinery

JIS B 7106 : 1997, First English edition published in 1998-03

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents, the original JIS is to be the final authority.

Printed in Japan

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Photographic lenses— F-number marking

Introduction This Japanese Industrial Standard is made on the basis of **ISO 517**, *Photography—Apertures and related properties pertaining to photographic lenses—Designations and measurements* published in 1996 as the 2nd edition without changing the technical contents as for the corresponding parts.

The provisions of **ISO 517** are divided into the specifications of three Japanese Industrial Standards of **JIS B 7094**, **JIS B 7095** and **JIS B 7106**.

1 Scope This Japanese Industrial Standard specifies the *f*-number marking indicated on the photographic lens (hereafter referred to as "*f*-number marking") and its tolerance.

Remarks : The following is the corresponding International Standard to this Standard:

ISO 517 : 1996 *Photography—Apertures and related properties pertaining to photographic lenses—Designations and measurements*

2 Normative references The following standards contain the provisions which, through reference in this text, constitute provisions of this Standard. The latest editions of them shall be applied.

JIS B 7095 *Photographic lenses – Methods for the measurement of the effective aperture, F-number and relative aperture*

JIS Z 8120 *Glossary of optical terms*

3 Definitions For the purpose of this Standard, the definitions given in **JIS Z 8120** apply.

4 Marking method The marking method shall be as follows:

a) The *f*-number marking shall, as a rule, be expressed by *f*-number of photographic lens.

b) The sequence of *f*-numbers to be used for *f*-number marking shall be in accordance with the geometrical progression of common ratio $\sqrt{2}$ (Column A of Table 1) passing 1, and the numerals to be marked on the scale shall be marked simply as follows:

0.5, 0.7, 1 [or 1.0(1)], 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22, 32, 45, 64, 90, 128, ...

Note (1) In the case of 1.0, specially 0 shall be appended to avoid confusion with the graduation line.

c) Formula for calculating the standard *f*-number

The standard *f*-number or the sequence of the stop values shall be calculated by the following formula.