



INTERNATIONAL STANDARD ISO 4892-4:2004
TECHNICAL CORRIGENDUM 1

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Plastics — Methods of exposure to laboratory light sources —
Part 4:
Open-flame carbon-arc lamps

TECHNICAL CORRIGENDUM 1

Plastiques — Méthodes d'exposition à des sources lumineuses de laboratoire —

Partie 4: Lampes à arc au carbone

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO 4892-4:2004 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

Page 1, Clause 2

Add the following normative reference:

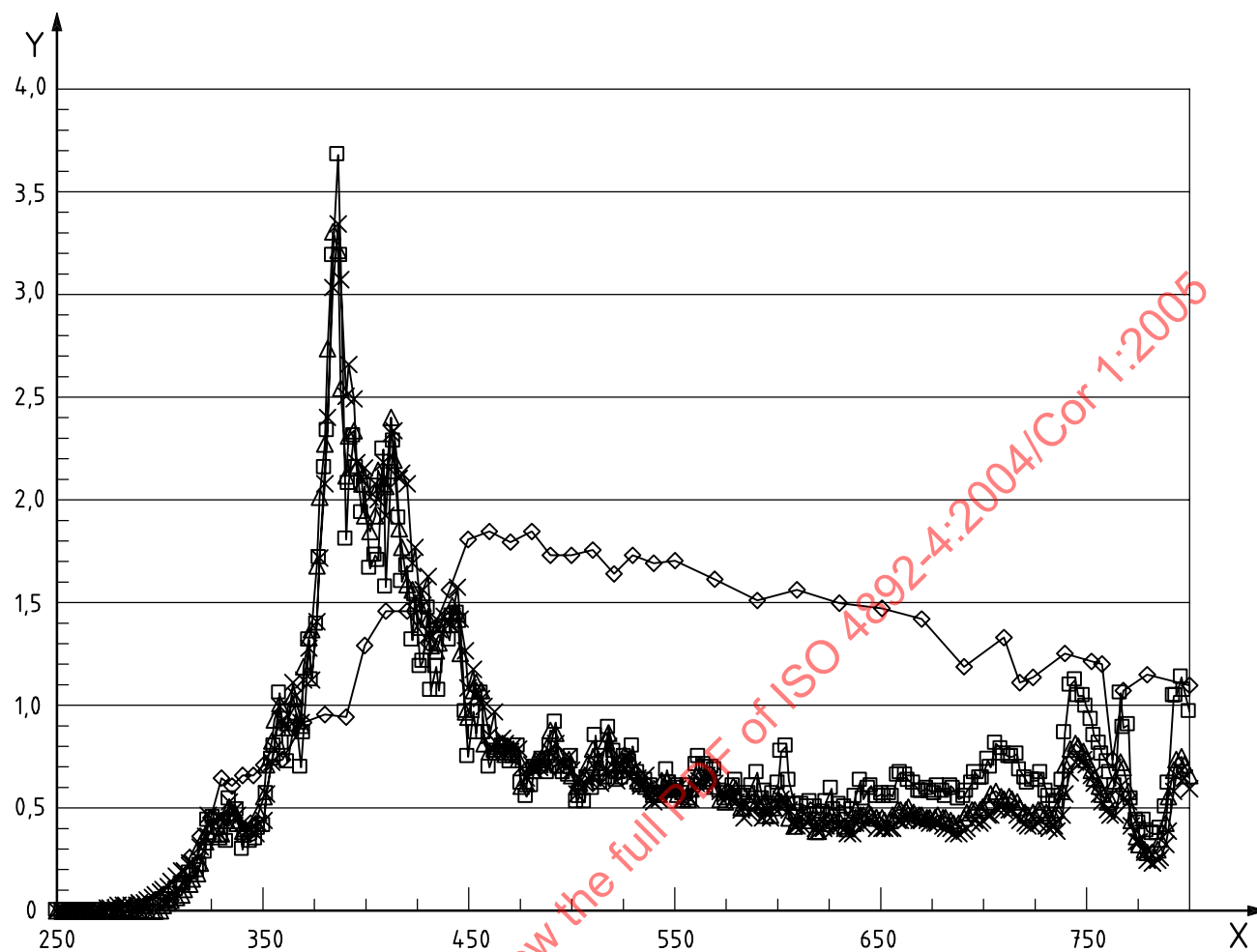
ASTM G 152, *Standard Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials*

Replace the text of this subclause by the following text and figures:

Open-flame carbon-arc light sources typically use three or four pairs of carbon rods which contain a mixture of rare-earth metal salts and have a surface coating of a metal such as copper. An electric current is passed between the carbon rods which burn, giving off ultraviolet, visible and infrared radiation. The pairs of carbon rods are burned in sequence, with one pair burning at any one time. Use the carbon rods recommended by the manufacturer of the apparatus. The radiation reaching the specimens passes through glass filters. Three types of glass filter are used in practice. Tables 1 and 2 show the typical relative spectral power distribution for open-flame carbon-arc lamps with daylight (type 1) and window-glass (type 2) filters, respectively. Table 3 shows the relative spectral irradiance for open-flame carbon-arc lamps with extended-UV (type 3) filters.

Figure 1 is a graph showing the typical spectral irradiance from 250 nm to 800 nm for open-flame carbon-arc lamps with type 1, type 2, and type 3 filters compared to CIE 85:1989 Table 4 daylight. Figure 2 is a graph showing the typical spectral irradiance from 250 nm to 320 nm for open-flame carbon-arc lamps with Type 1, Type 2, and Type 3 filters compared to CIE 85:1989 Table 4 daylight. Figure 2 is a better illustration of the short-wavelength cut-on differences between the three filter types.

Equipment manufacturers are required to show that the filtered open-flame carbon-arc devices they provide meet specific spectral irradiance requirements for each type of filter. These requirements and the procedures for determining conformance to the requirements are given in ASTM G 152.



Key

- X wavelength (nm)
Y irradiance (W/m^2 per nm)

Figure 1 — Typical spectral irradiance for open-flame carbon-arc lamps with type 1 filters (square symbols), type 2 filters (triangular symbols) and type 3 filters (crosses) compared to spectral irradiance of CIE 85:1989 Table 4 daylight (diamond-shaped symbols)