

ISO 18909:2006-07 (E)

Photography - Processed photographic colour films and paper prints - Methods for measuring image stability

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Test methods -- General	1
3.1	Sensitometric exposure	1
3.2	Processing	2
3.3	Densitometry	3
3.4	Definition of density terms	3
3.5	Density values to be measured	3
3.6	Method of correction of density measurements for d_{min} changes	3
3.7	Computation of image-life parameters	8
3.8	Effects of dye fading and stain formation on the printing quality of colour negative images	9
4	Test methods -- Dark stability	10
4.1	Introduction	10
4.2	Test conditions	10
4.3	Number of specimens	11
4.4	Test equipment and operation for specimens free-hanging in air	11
4.5	Test equipment and operation for specimens sealed in moisture-proof bags	12
4.6	Conditioning and packaging of specimens in moisture-proof bags	12
4.7	Incubation conditions for specimens sealed in moisture-proof bags	12
4.8	Computation of dark stability	12
5	Test methods -- Light stability	12
5.1	Introduction	12
5.2	Number of specimens	13
5.3	Irradiance measurements and normalization of test results	13
5.4	Backing of test specimens during irradiation testing	13
5.5	Specification for standard window glass	14
5.6	High-intensity filtered xenon arc ID65 illuminant (50 klx to 100 klx) for simulated indoor indirect daylight through window glass	14
5.7	Glass-filtered fluorescent room illumination -- Cool White fluorescent lamps (80 klx or lower)	16
5.8	Incandescent tungsten room illumination 3,0 klx - CIE illuminant A spectral distribution ..	18
5.9	Simulated outdoor sunlight (xenon arc) 100 klx - CIE D65 spectral distribution	18
5.10	Intermittent tungsten-halogen lamp slide projection 1 000 klx	21
5.11	Computation of light stability	21
6	Test report	21
6.1	Introduction	21
6.2	Dark stability tests	23
6.3	Light stability tests	24
Annex A (informative)	Numbering system for related International Standards	25

Annex B (informative) A method of interpolation for step wedge exposures	27
Annex C (informative) Method for power equation dmin correction of reflection print materials	28
Annex D (informative) Illustration of Arrhenius calculation for dark stability	33
Annex E (informative) The importance of the starting density in the assessment of dye fading and colour balance changes in light-stability tests	37
Annex F (informative) Enclosure effects in light-stability tests with prints framed under glass or plastic sheets	39
Annex G (informative) Data treatment for the stability of light-exposed colour images	41
Bibliography	49