

# ISO/IEC 29794-6:2015-07 (E)

## Information technology - Biometric sample quality - Part 6: Iris image data

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Conformance .....</b>	<b>1</b>
<b>3</b>	<b>Normative references .....</b>	<b>2</b>
<b>4</b>	<b>Terms and definitions .....</b>	<b>2</b>
<b>5</b>	<b>Acronyms and abbreviated terms .....</b>	<b>3</b>
<b>6</b>	<b>Iris image quality metrics .....</b>	<b>3</b>
6.1	General .....	3
6.2	Required iris image quality metrics computed from a single image .....	4
6.2.1	Usable iris area .....	4
6.2.2	Iris-sclera contrast .....	5
6.2.3	Iris-pupil contrast .....	6
6.2.4	Pupil boundary circularity .....	7
6.2.5	Grey scale utilisation .....	8
6.2.6	Iris radius .....	8
6.2.7	Pupil dilation .....	9
6.2.8	Iris pupil concentricity .....	9
6.2.9	Margin adequacy .....	10
6.2.10	Sharpness .....	12
6.3	Recommended iris image quality metrics computed from a single image .....	13
6.3.1	Frontal gaze-elevation .....	13
6.3.2	Frontal gaze-azimuth .....	13
6.3.3	Motion blur .....	15
6.4	Iris image quality metrics computed from two images .....	15
6.4.1	Common usable iris area .....	15
6.4.2	Dilation constancy .....	15
6.4.3	Illumination similarity .....	16
6.5	Unified (overall) quality score .....	16
6.5.1	General .....	16
6.5.2	Computational method .....	16
<b>7</b>	<b>Iris acquisition quality .....</b>	<b>17</b>
7.1	General .....	17
7.2	Dedicated illumination .....	17
7.2.1	Description .....	17
7.2.2	Units of measure .....	17
7.2.3	Computational method .....	18
7.2.4	Value range/threshold .....	18
7.3	Modulation transfer function .....	18
7.3.1	Description .....	18
7.3.2	Units of measure .....	18
7.3.3	Computational method .....	18
7.3.4	Value range/threshold .....	18
7.4	Spatial sampling rate .....	18

7.4.1	Description .....	18
7.4.2	Units of measure .....	19
7.4.3	Computational method .....	19
7.4.4	Value range/threshold .....	19
7.5	Optical distortion .....	19
7.6	Pixel aspect ratio .....	19
7.6.1	Description .....	19
7.6.2	Units of measure .....	19
7.6.3	Computational method .....	19
7.6.4	Value range/threshold .....	19
7.7	Sensor signal-to-noise ratio .....	19
7.7.1	Description .....	19
7.7.2	Units of measure .....	19
7.7.3	Computational method .....	20
7.7.4	Value range/threshold .....	20
8	Iris image quality data record .....	20
8.1	Binary encoding .....	20
8.2	XML encoding .....	22
Annex A (normative) Conformance test assertions .....		24
Annex B (informative) Iris image quality .....		25
Bibliography .....		29