

# ISO 17123-6:2022-05 (E)

## Optics and optical instruments - Field procedures for testing geodetic and surveying instruments - Part 6: Rotating lasers

---

| <b>Contents</b>   |  | <b>Page</b> |
|---|--|-------------|
| Foreword .....  |  | iv          |
| Introduction .....  |  | v           |
| <b>1</b>  | <b>Scope .....</b>   | <b>1</b>    |
| <b>2</b>  | <b>Normative references .....</b>  | <b>1</b>    |
| <b>3</b>  | <b>Terms and definitions .....</b>   | <b>2</b>    |
| <b>4</b>  | <b>Symbols and abbreviated terms .....</b>   | <b>2</b>    |
| <b>4.1</b>  | <b>Symbols .....</b>   | <b>2</b>    |
| <b>4.2</b>  | <b>Abbreviations .....</b>   | <b>3</b>    |
| <b>5</b>  | <b>General .....</b>   | <b>3</b>    |
| <b>5.1</b>  | <b>Requirements .....</b>  | <b>3</b>    |
| <b>5.2</b>  | <b>Procedure 1: simplified test procedure .....</b>  | <b>3</b>    |
| <b>5.3</b>  | <b>Procedure 2: full test procedure .....</b>  | <b>4</b>    |
| <b>6</b>  | <b>Simplified test procedure .....</b>   | <b>5</b>    |
| <b>6.1</b>  | <b>Configuration of the test field .....</b>   | <b>5</b>    |
| <b>6.2</b>  | <b>Measurements .....</b>  | <b>6</b>    |
| <b>6.3</b>  | <b>Calculation .....</b>   | <b>7</b>    |
| <b>7</b>  | <b>Full test procedure .....</b>   | <b>8</b>    |
| <b>7.1</b>  | <b>Configuration of the test line .....</b>  | <b>8</b>    |
| <b>7.2</b>  | <b>Measurements .....</b>  | <b>8</b>    |
| <b>7.3</b>  | <b>Calculation .....</b>   | <b>9</b>    |
| <b>7.4</b>  | <b>Statistical test .....</b>  | <b>13</b>   |
| <b>7.4.1</b>  | <b>General .....</b>   | <b>13</b>   |
| <b>7.4.2</b>  | <b>Question a) .....</b>   | <b>14</b>   |
| <b>7.4.3</b>  | <b>Question b) .....</b>   | <b>15</b>   |
| <b>7.4.4</b>  | <b>Question c) .....</b>   | <b>15</b>   |
| <b>7.4.5</b>  | <b>Question d) .....</b>   | <b>15</b>   |
| <b>8</b>  | <b>Influence quantities and combined standard uncertainty evaluation (Type A and Type B) .....</b> | <b>16</b>   |
| <b>Annex A (informative) Example of the simplified test procedure .....</b>             |  | <b>17</b>   |
| <b>Annex B (informative) Example of the full test procedure .....</b>                   |  | <b>20</b>   |
| <b>Annex C (informative) Example for the calculation of an uncertainty budget .....</b> |  | <b>25</b>   |
| <b>Bibliography .....</b>   |  | <b>28</b>   |