

# ISO 15727:2020-01 (E)

## UV-C devices - Measurement of the output of a UV-C lamp

---

<b>Contents</b>		<b>Page</b>
<b>Foreword</b>	.....	<b>iv</b>
<b>Introduction</b>	.....	<b>v</b>
<b>1 Scope</b>	.....	<b>1</b>
<b>2 Normative references</b>	.....	<b>1</b>
<b>3 Terms and definitions</b>	.....	<b>1</b>
<b>4 Types of UV-C lamps and ballasts</b>	.....	<b>2</b>
4.1 General	.....	2
4.2 Types of UV-C lamps	.....	2
4.2.1 General	.....	2
4.2.2 Linear UV-C lamps	.....	3
4.3 Type of ballasts	.....	3
4.3.1 General	.....	3
4.3.2 Magnetic ballasts	.....	3
4.3.3 Electronic ballasts	.....	4
<b>5 Measurement of the output of a UV-C lamp</b>	.....	<b>4</b>
5.1 Measurement method classification	.....	4
5.2 Measurement of the output of a UV-C lamp in a darkroom	.....	4
5.2.1 Instrument	.....	4
5.2.2 Calibration	.....	5
5.2.3 UV-C radiation power calculation	.....	5
5.2.4 Necessary conditions	.....	6
5.2.5 Measurements	.....	6
5.3 Measurement of the output of a UV-C lamp in a test chamber	.....	10
<b>6 Safety issues</b>	.....	<b>10</b>
6.1 General	.....	10
6.2 Protective clothing and eyewear	.....	10
6.3 UV-C photodegradation of organics	.....	10
6.4 Ozone production	.....	10
6.5 UV-C internal and external leakage	.....	10
6.6 Mercury content of the UV-C lamp	.....	11
6.7 Personal protective equipment	.....	11
<b>Annex A (informative) Suggested methods to minimize the effects of reflected UV-C</b>	.....	<b>12</b>
<b>Annex B (normative) Measurement of the output of a UV-C lamp in a test chamber</b>	.....	<b>13</b>
<b>Bibliography</b>	.....	<b>20</b>