

Heraeus

**FOR PHOTOMETERS, DENSITOMETERS,
POLARIMETERS AND OTHER OPTICAL
EQUIPMENT**

Absorption and reflection measurements in photometers are mostly performed at fixed wavelengths. For this purpose Mercury medium pressure lamps offer several advantages. The spectrum shows narrow lines in the UV as well as in the visible range. For quasi-monochromatic measurements the spectrum can be limited to one line with just a simple filter technique. Furthermore the single lines have a high irradiance and high-resolution measurements can be performed with conventional techniques.

Stabilised Lamps for Analytical Equipment

Heraeus Mercury lamps of the St-Series are stabilised medium pressure lamps especially developed for analytical applications. They are used in photometers, polarimeters, fluorimeters and other equipment. The emission lines have narrow bands, virtually monochromatic spectrum at constant, well reproducible wavelengths. Consequently, they are particularly suitable for absorption measurements.

Stable Output

St-Series lamps are stabilised by the geometry of the gas discharge resulting in an accurate position of the arc. As a result the noise is very low – in the order of 0.1%. The most favourable values of drift and noise are achieved when only the middle part of the light arc is used as the light source.

The guaranteed operating life for all St-Lamp types is 1000 hours with a reduction of the output of maximal 50%. A normal useful operating life can be between 2000 to 4000 hours.

Lamps of Small Design

Q-Series lamps are mercury medium pressure lamps designed for small size and are used for reading devices and monitoring equipment. All lamps are used as light sources for UV and visible light.

Heraeus Noblelight GmbH



www.heraeus-noblelight.com



Technical Data

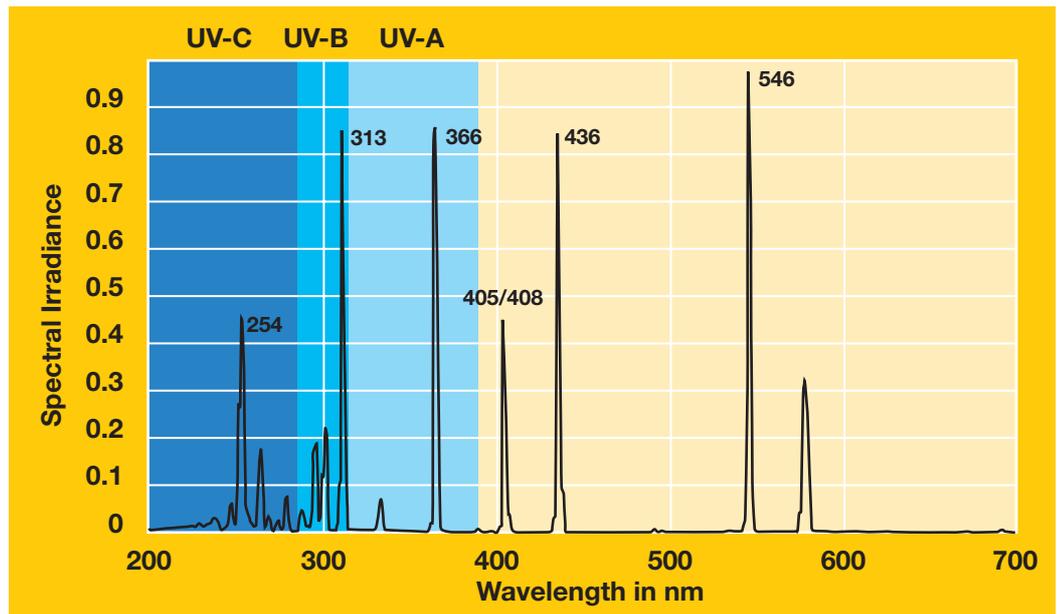
Lamp type	St 30	St 40/1	St 41	St 43/1-A	St 46	St 49/1	St 60	St 75	Q 25 A
Part No.	56001161	56001135	56001167	56001128	56001333	45000124	56001330	56001171	56001148
Total length [mm]	90	120	120	90	90	136	90	120	45
Light centre [mm]	43.5 ± 0.5	51.0 ± 0.5	51 ± 0.5	43.5 ± 0.5	43.5 ± 0.5	85 ± 3	43.5 ± 0.5	51 ± 0.5 (22.5)	in the middle
Arc length [mm]	18	25	11,5	25	11,5	25	25	20	5
Outer bulb Ø [mm]	19	without	without	19	19	22	19	without	without
Base	Noval EF 80 Cone 1:12	Bayonet catch Ba 20 d	Bayonet catch Ba 20 d	Noval EF 80 Cone 1:12	Noval EF 80 Cone 1:12	E 27	Noval EF 80 Cone 1:12	Bayonet catch Ba 20 d	Brass hood
Type of current	~	~	=	~	=	~	~	=	~
Ignition voltage [V]	260	200	300	200	330	230	230	800	200
Wattage [W]	30	40	45	35	33	35	45	80	25
Lamp voltage [V]	35 ± 3	55 ± 5	75 ± 10	40 ± 5	55 ± 5	40 ± 5	55 ± 5	88 ± 7	60 ± 10
Lamp current [A]	1.0	0.9	0.6	1.0	0.6	1.0	1.0	0.9	0.5
Luminous intensity [cd]	20	50	125	2	95	24	65	220	89
Luminance [cd cm ⁻²]	51	260	500	56	380	56	340	530	1020
Radiance [mW sr/cm ⁻²]									
UV-A	44	350	570	68	510	68	350	680	1251
UV-B	52	380	570	72	480	72	380	840	1568

The St-Lamps should be mounted with the base down and an inclination from the vertical of less than ± 20°.

In DC operation, the lamp must be connected so that the anode is at the bottom. The Q-Lamp can be operated in any orientation.

Safety warning

UV radiation damages the skin and eyes. Wear protective glasses, gloves and clothing.



Spectrum of Lamp Type St 46

Products as supplied may differ from the illustrations and descriptions in this brochure. Printed in Germany · HNG - B 148 E · D 2C 0704/M+T

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