

IONIZATION TECHNOLOGY THAT WORKS IN A VACUUM

— VUV IONIZER —

This unique system eliminates static charges by using vacuum ultraviolet light (VUV).

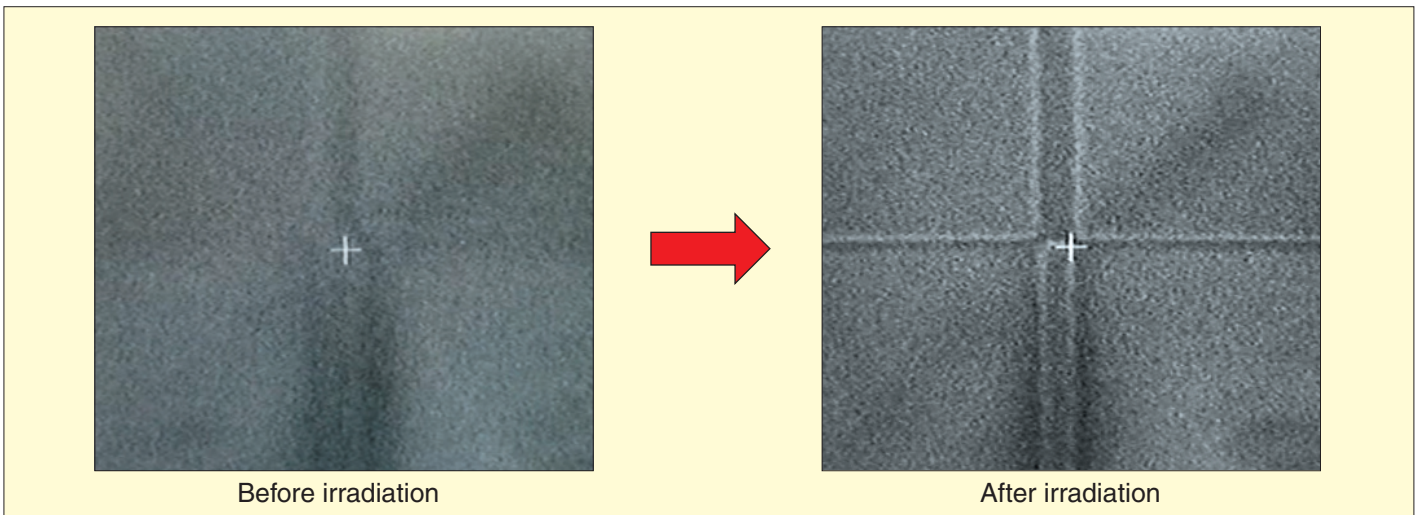
Conventional ionizers cannot neutralize static electricity in a depressurized (vacuum) state because of their mechanism. However, our VUV ionizer works by directly ionizing residual molecules with vacuum ultraviolet light and so can eliminate static charges even in a depressurized environment. Moreover, this VUV ionizer is also effective in removing electrostatic charges from inert gas environments.

Features of this VUV ionizer include no need for air flow and zero residual voltage potential, and so it delivers a clean and completely static-free environment.

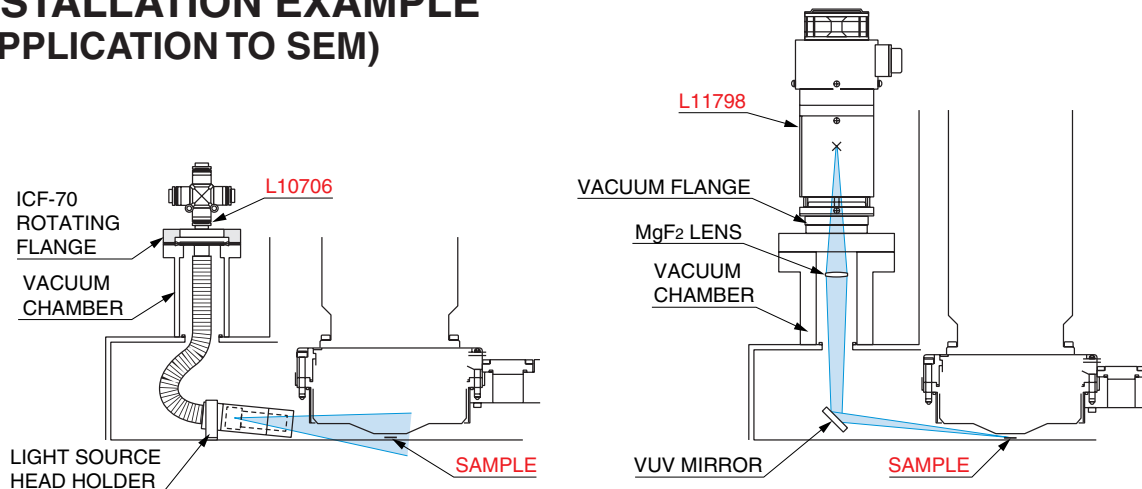
■ APPLICATIONS

- Dechucking of electrostatic chucks
- Devices utilizing electron beams (SEM, etc.)
- LCD manufacturing equipment
- Organic EL manufacturing equipment
- Hard disk manufacturing equipment
- Film manufacturing equipment

■ SEM IMAGE: COMPARISON OF ELECTROSTATIC CHARGE REMOVAL EFFECT



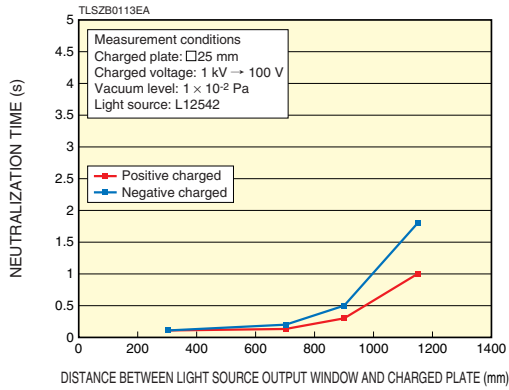
■ INSTALLATION EXAMPLE (APPLICATION TO SEM)



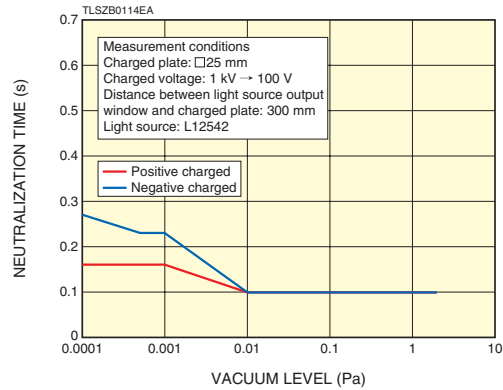
TLSZC0012EB

ELECTROSTATIC CHARGE REMOVAL EFFECT

Neutralization time vs. distance

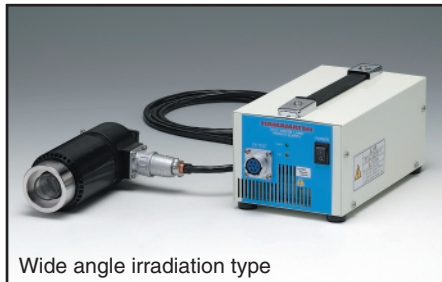


Neutralization time vs. vacuum level



PRODUCT LINEUP

L12542



L11798



L10706

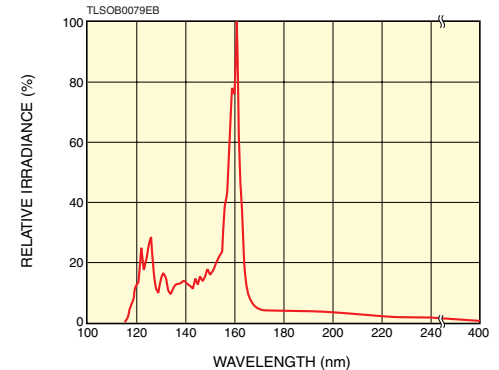


SPECIFICATIONS

Items	L12542	L11798	L10706
Lamp rating	Approx. 35 W	Approx. 110 W	Approx. 6 W
Light intensity	10 times (compared to L10706)	20 times (compared to L10706)	1
Cooling method	Air cooling by cooling fan	Air cooling by cooling fan	High-pressure air cooling
Guaranteed life*	2000 hours	1000 hours	1000 hours
Installation environment	In the air	In the air	In vacuum (in the air)

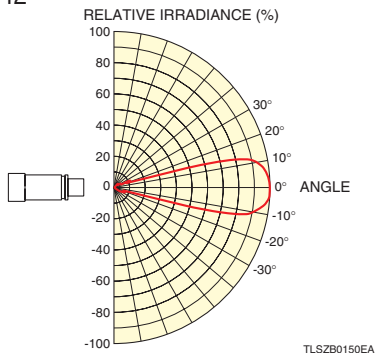
* End of service life is defined as the time when light intensity at 230 nm falls below 50 % of its initial value.

SPECTRAL DISTRIBUTION

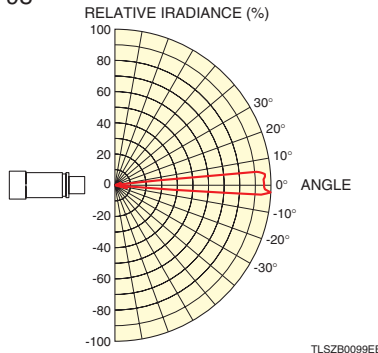


DIRECTIVITY (LIGHT DISTRIBUTION)

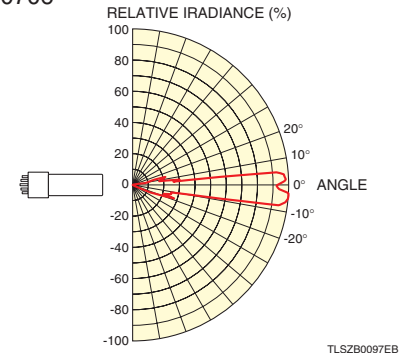
L12542



L11798



L10706



HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: usa@hamamatsu.com

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658 E-mail: info@hamamatsu.de

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: infos@hamamatsu.fr

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 SE-164 40 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: info@hamamatsu.se

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93581733, Fax: (39)02-93581741 E-mail: info@hamamatsu.it

China: Hamamatsu Photonics (China) Co., Ltd.: B1201 Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn

TL50B001E02

NOV. 2014 IP