LINEAR IRRADIATION TYPE UV-LED UNIT

LIGHTNINGCURE® LC-L5

— Concentration of optical technology —

HAMAMATSU

PHOTON IS OUR BUSINESS




LINEAR IRRADIATION TYPE UV-LED UNIT

LIGHTNINGCURE® LC-L5

Offering UV-LED light sources with a cluster of photonics technology





The LC-L5G UV-LED light sources have many kinds of applications including UV curing and ink drying.
Along with high output, all LC-L5G UV-LED units employ an "air cooling scheme" developed by our own technology.
Besides offering the highest power output in its class unmatchable by metal-halide lamps and other UV-LED light sources, this air cooling scheme eliminates having to install chiller equipment, minimizing the initial introduction costs and the space (footprint) required for installation.
Hamamatsu provides a diverse LC-L5G product lineup to match your application and offers an LC-L5G that will be ideal for your needs.

Product Lineup

GJ Series

GJ-75

Irradiation area: 75 mm × 15 mm ▶Page 4

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	—	—
UV irradiance	9 W/cm²	12 W/cm²	—	—

GL Series

GL-120

Irradiation area: 120 mm × 15 mm ▶Page 5

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	—	—
UV irradiance	9 W/cm²	12 W/cm²	—	—

GL-150C

Irradiation area: 150 mm × 50 mm ▶Page 6

	365 nm	385 nm	395 nm	405 nm
Wavelength	—	✔	✔	—
UV irradiance	—	5 W/cm²	5 W/cm²	—

GL-250

Irradiation area: 250 mm × 15 mm ▶Page 7

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	—	—
UV irradiance	9 W/cm²	12 W/cm²	—	—

GL-430

Irradiation area: 430 mm × 15 mm ▶Page 8

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	—	—
UV irradiance	9 W/cm²	12 W/cm²	—	—

GP Series

GP-75

Irradiation area: 75 mm × 5 mm ▶Page 9

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	✔	✔
UV irradiance	2.5 W/cm²	2.5 W/cm²	2.5 W/cm²	2.5 W/cm²

GC-77

Irradiation area: 77 mm × 5 mm ▶Page 10

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	✔	✔
UV irradiance	2.5 W/cm²	2.5 W/cm²	2.5 W/cm²	2.5 W/cm²

GC Series

GC-77S

Irradiation area: 77 mm × 5 mm ▶Page 11

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	✔	✔
UV irradiance	2.5 W/cm²	2.5 W/cm²	2.5 W/cm²	2.5 W/cm²

GC-113

Irradiation area: 113 mm × 8 mm ▶Page 12

	365 nm	385 nm	395 nm	405 nm
Wavelength	✔	✔	✔	—
UV irradiance	7.5 W/cm²	10 W/cm²	10 W/cm²	—

* UV irradiance is the value at distance of 0 mm.

GJ series

GJ-75

UV irradiance (Max.): 12 W/cm²

The GJ series meets your needs for high output, air cooling, compact and lightweight with high-level solutions. Hamamatsu has succeeded in linking all the technology it fostered up to now in its unique cooling mechanisms and optical systems to converge the mutually exclusive major elements of high output, air cooling, compact and lightweight into one unit.
By achieving high-level specs from these elements, the GJ series helps improve productivity in manufacturing process and reduce total costs and installation space.

Product lineup offers an irradiation area of 75 mm (W) × 15 mm (D) and wavelengths of 365 nm and 385 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L12990-1203	L12990-2303	Unit
Irradiation area ①		75 × 15		mm
UV irradiance ②	(at distance of 0 mm)	9	12	W/cm²
	(at distance of 2 mm)	6	10	
Wavelength		365	385	nm
Light output stability		±5		%/h
LED design life ③		20 000		h
Input voltage (DC)		48		V
Power consumption (Max.)		600		W
Cooling method		Forced air cooling by fan		—
Operating temperature range		+5 to +40		°C
Storage temperature range		-10 to +60		°C
Operating humidity range		10 % to 80 % (no condensation)		—
Storage humidity range		Below 80 % (no condensation)		—
External control		Irradiation control, light intensity adjustment, Irradiation signal, various error signals		—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A		—
	Safety standards	IEC61010-1: 2010		
		IEC62471: 2006 Risk Group 3		
	Environmental standards	RoHS directive		
		WEEE directive		
Dimensions (W × H × D)		110 × 200 × 72		mm
Weight		Approx. 1.26		kg
Connectable operation		Not possible		—
Multi-unit operation (from one power supply)		Not possible		—
Recommended power supply ④	Output voltage (DC)	48		V
	Output power (Min.)	600		W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GL series

GL-120

UV irradiance (Max.): 12 W/cm²

Besides high output and efficient air cooling, the GL series also offers a wide range of product variations. UV-LED light sources have great features such as a compact and lightweight body, low power consumption (cuts the electric power bill), long life, and instantaneous lighting and ON/OFF operation. The GL-120 includes all of these features and extracts the utmost in UV-LED light source performance via high technology to deliver high output and efficient air cooling.

Product lineup offers an irradiation area of 120 mm (W) × 15 mm (D) and wavelengths of 365 nm and 385 nm.

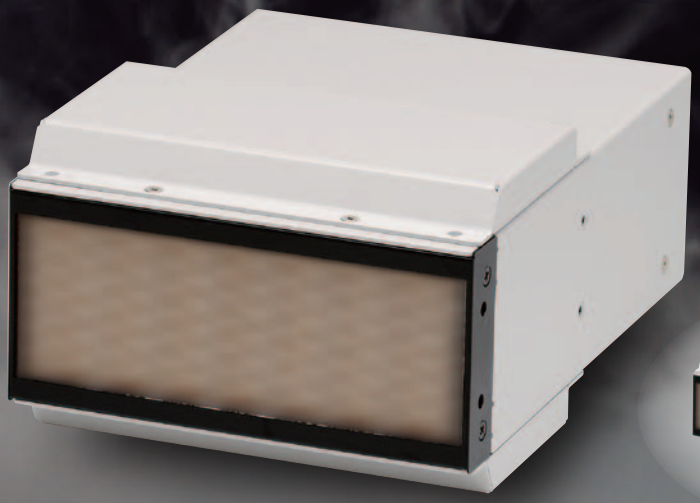
Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

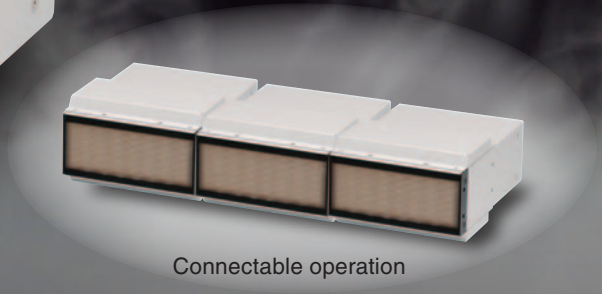
■ SPECIFICATIONS

Parameter		L13341-1205	L13341-2305	Unit
Irradiation area ①		120 × 15		mm
UV irradiance ②	(at distance of 0 mm)	9	12	W/cm²
	(at distance of 2 mm)	6	10	
Wavelength		365	385	nm
Light output stability		±5		%/h
LED design life ③		20 000		h
Input voltage (DC)		48		V
Power consumption (Max.)		900		W
Cooling method		Forced air cooling by fan		—
Operating temperature range		+5 to +40		°C
Storage temperature range		-10 to +60		°C
Operating humidity range		10 % to 80 % (no condensation)		—
Storage humidity range		Below 80 % (no condensation)		—
External control		Irradiation control, light intensity adjustment, irradiation signal, various error signals		—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A		—
	Safety standards	IEC61010-1: 2010		
		IEC62471: 2006 Risk Group 3		
	Environmental standards	RoHS directive		
		WEEE directive		
Dimensions(W × H × D)		153 × 200 × 100		mm
Weight		Approx. 1.9		kg
Connectable operation		Not possible		—
Multi-unit operation (from one power supply)		Not possible		—
Recommended power supply ④	Output voltage (DC)	48		V
	Output power (Min.)	900		W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GL series





Connectable operation

GL-150C

UV irradiance (Max.): 5 W/cm²

Besides high output and efficient air cooling, the GL series also offers a wide range of product variations.
The GL-150C supports operation of multiple linked units to expand the irradiation area in the width direction.
This allows a high degree of freedom in designing a light source system that matches the production process conditions.
The GL-150C has already been used by many customers in a wide range of application fields.

Product lineup offers an irradiation area of 150 mm (W) × 50 mm (D) and wavelengths of 385 nm and 395 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13750-2306-004	L13750-3306-004	Unit
Irradiation area ①		150 × 50		mm
UV irradiance ②	(at distance of 0 mm)	5		W/cm²
	(at distance of 2 mm)	4		
Wavelength		385	395	nm
Light output stability		±5		%/h
LED design life ③		20 000		h
Input voltage (DC)		48		V
Power consumption (Max.)		900		W
Cooling method		Forced air cooling by fan		—
Operating temperature range		+5 to +40		°C
Storage temperature range		-10 to +60		°C
Operating humidity range		10 % to 80 % (no condensation)		—
Storage humidity range		Below 80 % (no condensation)		—
External control		Irradiation control, light intensity adjustment, irradiation signal, various error signals		—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A		—
	Safety standards	IEC61010-1: 2010		
		IEC62471: 2006 Risk Group 3		
	Environmental standards	RoHS directive		
		WEEE directive		
Dimensions (W × H × D)		152 × 200 × 100		mm
Weight		Approx. 1.9		kg
Connectable operation		Possible		—
Multi-unit operation (from one power supply)		Not possible		—
Recommended power supply ④	Output voltage (DC)	48		V
	Output power (Min.)	900		W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GL series

GL-250

UV irradiance (Max.): 12 W/cm²

Besides high output and efficient air cooling, the GL series also offers a wide range of product variations. Switching away from metal-halide lamps to UV-LED light sources provides various kinds of benefits such as higher equipment performance and efficiency and also cuts the overall cost. These changes have almost zero effect on device characteristics regardless of application, so we recommend making a switchover to the GL-250 UV-LED.

Product lineup offers an irradiation area of 250 mm (W) × 15 mm (D) and wavelengths of 365 nm and 385 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13341-1210	L13341-2310	Unit
Irradiation area ①		250 × 15		mm
UV irradiance ②	(at distance of 0 mm)	9	12	W/cm²
	(at distance of 2 mm)	6	10	
Wavelength		365	385	nm
Light output stability		±5		%/h
LED design life ③		20 000		h
Input voltage (DC)		48		V
Power consumption (Max.)		1750		W
Cooling method		Forced air cooling by fan		—
Operating temperature range		+5 to +40		°C
Storage temperature range		-10 to +60		°C
Operating humidity range		10 % to 80 % (no condensation)		—
Storage humidity range		Below 80 % (no condensation)		—
External control		Irradiation control, light intensity adjustment, irradiation signal, various error signals		—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A		—
	Safety standards	IEC61010-1: 2010		
		IEC62471: 2006 Risk Group 3		
	Environmental standards	RoHS directive		
		WEEE directive		
Dimensions (W × H × D)		320 × 210 × 100		mm
Weight		Approx. 3.8		kg
Connectable operation		Not possible		—
Multi-unit operation (from one power supply)		Not possible		—
Recommended power supply ④	Output voltage (DC)	48		V
	Output power (Min.)	1750		W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GL series

GL-430

UV irradiance (Max.): 12 W/cm²

Besides high output and efficient air cooling, the GL series also offers a wide range of product variations.
Among the LC-L5G UV-LED units, the GL-430 is number one in terms of irradiation area.
In addition to the large irradiation area, our unique optical systems ensure uniform irradiation that eliminates nearly all variations in light intensity.
The GL-430 will vastly improve quality control in a wide range of applications.

Product lineup offers an irradiation area of 430 mm (W) × 15 mm (D) and wavelengths of 365 nm and 385 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13341-1217	L13341-2317	Unit
Irradiation area ①		430 × 15		mm
UV irradiance ②	(at distance of 0 mm)	9	12	W/cm²
	(at distance of 2 mm)	6	10	
Wavelength		365	385	nm
Light output stability		±5		%/h
LED design life ③		20 000		h
Input voltage (DC)		48		V
Power consumption (Max.)		2900		W
Cooling method		Forced air cooling by fan		—
Operating temperature range		+5 to +40		°C
Storage temperature range		-10 to +60		°C
Operating humidity range		10 % to 80 % (no condensation)		—
Storage humidity range		Below 80 % (no condensation)		—
External control		Irradiation control, light intensity adjustment, irradiation signal, various error signals		—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A		—
	Safety standards	IEC61010-1: 2010		
		IEC62471: 2006 Risk Group 3		
	Environmental standards	RoHS directive		
		WEEE directive		
Dimensions (W × H × D)		520 × 210 × 100		mm
Weight		Approx. 6.25		kg
Connectable operation		Not possible		—
Multi-unit operation (from one power supply)		Not possible		—
Recommended power supply ④	Output voltage (DC)	48		V
	Output power (Min.)	2900		W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GP series

GP-75

UV irradiance (Max.): 2.5 W/cm²

The GP / GC series has a lean, stylish design aimed at providing versatility via a compact body and thin profile.
The GP-75 has a cooling fan mounted on the side face and so can be installed even in confined spaces.
The GP-75 is also designed for less power consumption to allow energy-savings at production sites.

Product lineup offers an irradiation area of 75 mm (W) × 5 mm (D) and wavelengths of 365 nm, 385 nm, 395 nm and 405 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13342-1203-003	L13342-2203-004	L13342-3203-004	L13342-4203-004	Unit
Irradiation area ①		75 × 5				mm
UV irradiance ②	(at distance of 0 mm)	2.5				W/cm²
	(at distance of 2 mm)	2				
Wavelength		365	385	395	405	nm
Light output stability		±10				%/h
LED design life ③		20 000				h
Input voltage (DC)		48				V
Power consumption (Max.)		45	40	40	40	W
Cooling method		Forced air cooling by fan				—
Operating temperature range		+5 to +40				°C
Storage temperature range		-10 to +60				°C
Operating humidity range		20 % to 80 % (no condensation)				—
Storage humidity range		Below 80 % (no condensation)				—
External control		Irradiation control, light intensity adjustment, various error signals				—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A				—
	Safety standards	IEC61010-1: 2010				
		IEC62471: 2006 Risk Group 3				
	Environmental standards	RoHS directive				
		WEEE directive				
Dimensions (W × H × D)		77 × 140 × 24				mm
Weight		Approx. 250				g
Connectable operation		Not possible				—
Multi-unit operation (from one power supply)		Possible				—
Recommended power supply ④	Output voltage (DC)	48				V
	Output power (Min.)	45	40	40	40	W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GC series

Connected operation

GC-77

UV irradiance (Max.): 2.5 W/cm²

The GP / GC series has a lean, stylish design aimed at providing versatility via a compact body and thin profile. The GC-77 supports operation of multiple linked units to make it so easy to adapt different production processes. Highly accurate positioning of the lens in the light-emitting window ensures uniform irradiation free of any shading even at the junctions between each unit during operation of multiple linked units.

Product lineup offers an irradiation area of 77 mm (W) × 5 mm (D) and wavelengths of 365 nm, 385 nm, 395 nm and 405 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13343-1203-003	L13343-2203-004	L13343-3203-004	L13343-4203-004	Unit
Irradiation area ①		77 × 5				mm
UV irradiance ②	(at distance of 0 mm)	2.5				W/cm²
	(at distance of 2 mm)	2				
Wavelength		365	385	395	405	nm
Light output stability		±10				%/h
LED design life ③		20 000				h
Input voltage (DC)		48				V
Power consumption (Max.)		45	40	40	40	W
Cooling method		Forced air cooling by fan				—
Operating temperature range		+5 to +40				°C
Storage temperature range		-10 to +60				°C
Operating humidity range		20 % to 80 % (no condensation)				—
Storage humidity range		Below 80 % (no condensation)				—
External control		Irradiation control, light intensity adjustment, various error signals				—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A				—
	Safety standards	IEC61010-1: 2010				
		IEC62471: 2006 Risk Group 3				
	Environmental standards	RoHS directive				
		WEEE directive				
Dimensions (W × H × D)		77 × 140 × 24				mm
Weight		Approx. 250				g
Connectable operation		Possible				—
Multi-unit operation (from one power supply)		Possible				—
Recommended power supply ④	Output voltage (DC)	48				V
	Output power (Min.)	45	40	40	40	W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GC Series

Irradiation surface side

Cooling fan surface side

Connected operation

GC-77S

UV irradiance (Max.): 2.5 W/cm²

The GP / GC series has a lean, stylish design aimed at providing versatility via a compact body and thin profile. The GC-77S is capable of irradiating light perpendicular to its installation surface. This means there is no need to provide vertical (height-wise) installation space, so the GC-77S can now be installed in locations where it was previously tough to mount. The GC-77S also supports operation of multiple linked units to make it so easy to adapt different production processes.

Product lineup offers an irradiation area of 77 mm (W) × 5 mm (D) and wavelengths of 365 nm, 385 nm, 395 nm and 405 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13343-1203-023	L13343-2203-024	L13343-3203-024	L13343-4203-024	Unit
Irradiation area ①		77 × 5				mm
UV irradiance ②	(at distance of 0 mm)	2.5				W/cm²
	(at distance of 2 mm)	2				
Wavelength		365	385	395	405	nm
Light output stability		±10				%/h
LED design life ③		20 000				h
Input voltage (DC)		48				V
Power consumption (Max.)		45	40	40	40	W
Cooling method		Forced air cooling by fan				—
Operating temperature range		+5 to +40				°C
Storage temperature range		-10 to +60				°C
Operating humidity range		20 % to 80 % (no condensation)				—
Storage humidity range		Below 80 % (no condensation)				—
External control		Irradiation control, light intensity adjustment, various error signals				—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A				—
	Safety standards	IEC61010-1: 2010				
		IEC62471: 2006 Risk Group 3				
	Environmental standards	RoHS directive				
		WEEE directive				
Dimensions (W × H × D)		77 × 24 × 153.5				mm
Weight		Approx. 285				g
Connectable operation		Possible				—
Multi-unit operation (from one power supply)		Possible				—
Recommended power supply ④	Output voltage (DC)	48				V
	Output power (Min.)	45	40	40	40	W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

GC Series

Connected operation

GC-113

UV irradiance (Max.): 10 W/cm²

The GP / GC series has a lean, stylish design aimed at providing versatility via a compact body and thin profile. The GC-113 supports operation of multiple linked units to make it so easy to adapt different production processes. The GC-113 helps suppress equipment investment cost to a minimum since there is no longer any need to switch over or replace production equipment when changing the production lines.

Product lineup offers an irradiation area of 113 mm (W) × 8 mm (D) and wavelengths of 365 nm, 385 nm and 395 nm.

Use commercially available general-purpose power supplies or a power supply available from Hamamatsu.

■ SPECIFICATIONS

Parameter		L13343-1604-033	L13343-2804-033	L13343-3804-033	Unit
Irradiation area ①		113 × 8			mm
UV irradiance ②	(at distance of 0 mm)	7.5	10	10	W/cm²
	(at distance of 2 mm)	6	8	8	
Wavelength		365	385	395	nm
Light output stability		±10			%/h
LED design life ③		20 000			h
Input voltage (DC)		48			V
Power consumption (Max.)		260			W
Cooling method		Forced air cooling by fan			—
Operating temperature range		+5 to +40			°C
Storage temperature range		-10 to +60			°C
Operating humidity range		20 % to 80 % (no condensation)			—
Storage humidity range		Below 80 % (no condensation)			—
External control		Irradiation control, light intensity adjustment, various error signals			—
Applicable standards	EMC standard	IEC61326-1: 2012 Group 1 Class A			—
	Safety standards	IEC61010-1: 2010			
		IEC62471: 2006 Risk Group 3			
	Environmental standards	RoHS directive			
		WEEE directive			
Dimensions (W × H × D)		113 × 128 × 38			mm
Weight		Approx. 500			g
Connectable operation		Possible			—
Multi-unit operation (from one power supply)		Possible			—
Recommended power supply ④	Output voltage (DC)	48			V
	Output power (Min.)	260			W

NOTE: ①Area irradiated at a distance of 2 mm
②Maximum UV irradiance within the irradiation area
③Average time until the irradiance drops to 70 % of the initial level when operated at 25 °C
④When using commercially available power supplies, make sure that they have the recommended specifications.

Question	Answer
What else do I need besides the LC-L5G?	You need a power supply and cables. Use commercially available general-purpose power supplies and cables or a controller power supply available from Hamamatsu and our optional cables.
Do I need cooling exhaust ducts?	The cooling fan within the LC-L5G unit is basically capable of adequate cooling, so cooling exhaust ducts are not needed. However, if you are concerned about effects of the cooling fan on the object being irradiated, then exhaust ducts will have to be installed. Please consult us if you will be installing them.
Does the LC-L5G generate ozone?	No, it does not generate ozone.
Can the LC-L5G be used in a nitrogen (N_2) environment?	Yes, it can be used in a nitrogen (N_2) environment. However, it cannot be used under a depressurized condition. Hamamatsu has various lamp light sources available, so please consult if necessary.
Can other equipment be linked with the LC-L5G operation?	Yes, the LC-L5G is designed for remote control operation and so can be linked to other equipment.
Can the LED still be used when its design service life time (20,000 hours) is exceeded?	We recommend replacing the LED within its design service life time (20,000 hours). Although it is still usable even if the LED design service life time (20,000 hours) is exceeded, the LED and other components may deteriorate suddenly.
What temperature does the LC-L5G unit body reach during operation?	During operation at an ambient temperature of 25 °C, the unit body temperature reaches approximately 40 °C to 50 °C (localized points may reach approximately 60 °C).
Are there any thermal effects on the irradiated objects?	UV-LED emits a single wavelength of light in the UV range and has only minimal thermal effects on the irradiated object compared to metal halide lamps which emit light over a broad wavelength range from UV to infrared. However, this does not mean that the thermal effects are zero.
Can the UV-LED light intensity be compared with that from metal halide lamps?	Metal halide lamps emit light over a broad wavelength range while UV-LED emits a single wavelength of light, so comparing their light intensities is not a simple task. However, if the specifications for a particular metal halide lamp are known, then a rough comparison can be made. Please consult us for assistance.
Does switching over from metal halide lamps to UV-LED affect the work environment?	Besides minimal thermal effects on the irradiated object, the amount of heat emitted from the UV-LED is low compared to metal halide lamps, so the temperature in the work environment is vastly improved.
How much does switching over from metal halide lamps to UV-LED lower the electric power bill?	If you could give us the information such as power consumption figure, then we could calculate your electric power bill. Please consult us for assistance.
Can the LC-L5G unit be customized?	Please consult with us about customizing the unit.
Is there a dedicated mounting stand?	Please consult us for information on a custom mounting stand.
What kind of maintenance service can I expect?	The light-emitting window and the cooling fan filter can be replaced on-site. If other servicing or repairs are needed, then please return the LC-L5G unit to us for servicing.
How do I replace the light-emitting window?	Our service personnel can replace it at your workplace or you can ship the LC-L5G unit back to us for replacement.
How should I monitor the light intensity?	We recommend using UV power meters available as options from us. You can also utilize your own UV power meter if properly calibrated.
Are there any precautions I should take during use?	The LC-L5G unit emits UV light harmful to the eyes and skin. Always wear light-shielding gear to protect yourself during operation. Also, build an enclosure around the LC-L5G unit at the time of installation to prevent UV light from leaking outward. See the instruction manual for details.
Are there any compulsory legal duties I have to fulfill?	Basically, there are no legal responsibilities such as having to submit official notifications, etc. Check the legal regulations in your country for more information.

Options

■ UV INTENSIRY INTEGRABLE POWER METER

Hamamatsu also provides UV power meters designed to measure UV irradiance and accumulated amount of light. These UV power meters exhibit a minimum decrease in sensitivity against UV exposure and so allow reliable measurement with good reproducibility.

Sensor head H12684 series + Controller C12144

Parameter		H12684-365	H12684-385	H12684-395	H12684-405	Unit
		C12144				
Sensitive wavelength range		320 to 400	300 to 470			nm
Wavelength of sensitivity (Max.)		370	395			nm
Calibrated wavelength		365	385	395	405	nm
Effective area		ϕ1				mm
Measurement range	Irradiance	0.1 mW/cm^2 to 100 W/cm^2				—
	Integrated power	0.1 mJ/cm^2 to 9999 J/cm^2				—
Measurement mode	Irradiance	Irradiance measurement and display mode (mW/cm^2)				—
	Integrated power	Integrated power measurement and display mode (mJ/cm^2)				—
	Irradiance peak hold	Peak irradiance display mode during measurement (mW/cm^2)				—
External interface		RS-232C, USB2.0				—
Power requirement		Two AAA batteries / Dedicated AC adapter / USB				—

* Since the sensor is calibrated using its sensitivity wavelengths, the display value may differ when measuring a light source whose spectrum differs from the sensitivity wavelengths.
To maintain the reliability of the calibrated value, it is recommended to calibrate the sensor once a year.

■ LIGHT SOURCE TO POWER SUPPLY CONNECTION CABLES

These cables connect an LC-L5G to a controller power supply available from Hamamatsu.

Parameter		A13052-030	A13052-050	A13692-030-03	A13692-050-03	A13692-030-23	A13692-050-23
Cable length		3 m	5 m	3 m	5 m	3 m	5 m
Compatible UV-LED unit	GJ-75	✔	✔	—	—	—	—
	GL-120	✔	✔	—	—	—	—
	GL-150C	✔	✔	—	—	—	—
	GL-250	✔	✔	—	—	—	—
	GL-430 ①	✔	✔	—	—	—	—
	GP-75	—	—	✔	✔	—	—
	GC-77	—	—	✔	✔	—	—
	GC-77S	—	—	✔	✔	—	—
	GC-113	—	—	—	—	✔	✔

Note: ①The GL-430 requires two cables.

These cables connect an LC-L5G UV-LED unit to a commercially available general-purpose power supply.

Parameter		A13052-030-01	A13052-050-01
Cable length		3 m	5 m
Compatible UV-LED unit	GJ-75	✔	✔
	GL-120	✔	✔
	GL-150C	✔	✔
	GL-250	✔	✔
	GL-430 ①	✔	✔
	GP-75	—	—
	GC-77	—	—
	GC-77S	—	—
	GC-113	—	—

Note: ①The GL-430 requires two cables.

■ LIGHT SOURCE TO LIGHT SOURCE CONNECTION CABLES

This cable connects between LC-L5G UV-LED units when operating multiple units from one power supply.

Parameter		A13692-002	A13692-002-22
Cable length		200 mm	200 mm
Compatible UV-LED unit	GP-75 ①	✔	—
	GC-77 ①	✔	—
	GC-77S ①	✔	—
	GC-113 ②	—	✔

Note: ①Up to 8 UV-LED units can be operated by connecting them using the cables.
②Up to 3 UV-LED units can be operated by connecting them using the cables.

PRODUCTION PROCESS SUPPORT PRODUCTS

Hamamatsu provides products that support production process, such as for static electricity removal and surface modification (function improvement). Using these products will help enhance performance, quality and throughput in production process.

Electrostatic charge remover
PhotoIonBar

Excimer lamp light source
FLAT EXCIMER

* LIGHTNINGCURE is a registered trademark of Hamamatsu Photonics K.K.

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, NJ 08807, 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)8152-265-8 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, UK, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk
North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 16440 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)02-93 58 17 33, Fax: (39)02-93 58 17 41 E-mail: info@hamamatsu.it
China: Hamamatsu Photonics (China) Co., Ltd.: 1201 Tower B, Jiaming Center, 27 Dongsanhuan Beilu, Chaoyang District, 100020 Beijing, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn
Taiwan: Hamamatsu Photonics Taiwan Co., Ltd.: 8F-3, No.158, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)03-659-0080, Fax: (886)03-659-0081 E-mail: info@tw.hpk.co.jp

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