

Escalator Handrail Sterilization Lamp

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Using the high reliability UVC LEDs from Seoul Viosys which is a leading compound semiconductor solution provider globally, the world's first ultraviolet LED technology owner whose product is proven to sterilize new coronaviruses. Long life span of 10000hrs, 3 sides LED design, Triple Irradiance, no dead-end virus sterilization for escalator handrails.

Lens design optimize the UVC transmission and reduce harm to human from the light leakage

Empowered by 

Applications

- ✧ Escalator Handrail Sterilization

Advantages

- ✧ High UVC-LED application efficiency, Use Seoul Ultraviolet LED solution
- ✧ Lens design to control light beam transmission, optimize UVC efficiency but reduce light leakage
- ✧ Aluminum body give High heat dissipation and reduce weight
- ✧ Modular design to reduce maintenance cost and increase flexibility to customers' needs
- ✧ Dust cover can protect the lamp not affected by the dust during escalator operation
- ✧ IP65

Standards

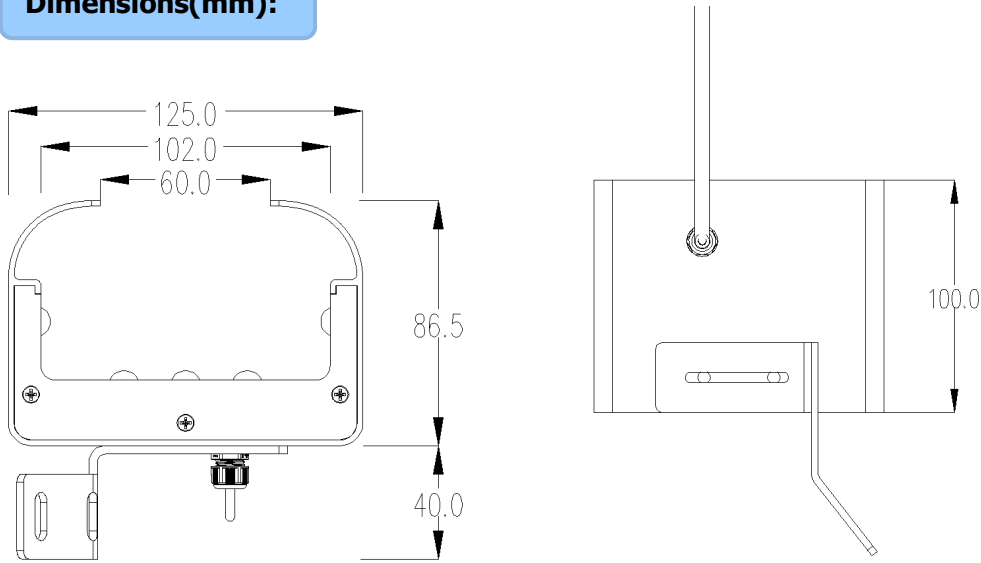
- ✧ Conformity with CE/EMC EN55015:2013/A1:2015
- ✧ Conformity with RoHS Directive EN62321 -2:2014 ,EN62321-3-1:2014 - Pb, Cd, Hg, Cr+6, PBBs & PBDSs 6 substances complies to RoHS standard.



Specifications
*** Electrical/Optical Characteristics Rating (Ta=25°C)**

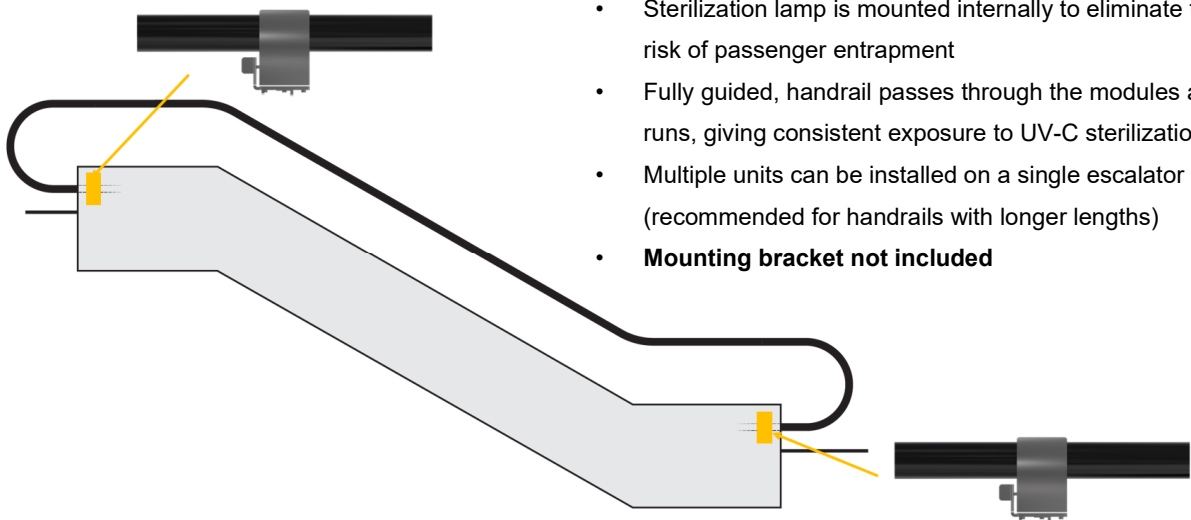
Specifications	Handrail UVC Lamp		
Model No.	ES-24V-04W	ES-24V-06W	ES-24V-12W
Colour	UVC	UVC	UVC
Wave length CCT)	270-280nm	270-280nm	270-280nm
Input Voltage	24VDC	24VDC	24VDC
Rated Current	<0.18A	<0.3A	<0.65A
Initial Irradiance uw/cm2 @15mm	400	450	1650
Total Output Power	4W	6W	12W
Beam Angle Range	120°	120°	120°
Life Span(at 25°C)	> 5000 hrs	> 10000 hrs	> 10000 hrs
Off & On times	> 30000 times	> 30000 times	> 30000 times
Tested Sterilization time (Escherichia coli)8099, @15mm, Antibacterial Rate 99.99%	45s	15S	5S
Operating Temperature	-25°C -/+ 50°C	-25°C -/+ 50°C	-25°C -/+ 50°C
Storage Temperature	-30°C -/+ 70°C	-30°C -/+ 70°C	-30°C -/+ 70°C
Ingress Proection	IP65	IP65	IP65
Dimmable	Yes	Yes	Yes
RoHS	Yes	Yes	Yes
Irradiation area	95*95mm	95*95mm	95*95mm
Best Sterilization Distance (Vertical distance between light emitting,surface of lamp and handrail)	<=15mm	<=15mm	<=15mm
LED Brand	Seoul	Seoul	Seoul
LED Quantity	15PCS 3030	24PCS 3030	15PCS 3030*6+3535*9
Housing	Aluminium 6063	Aluminium 6063	Aluminium 6063
Lens	Quartz Glass	Quartz Glass	Quartz Glass

Dimensions(mm):

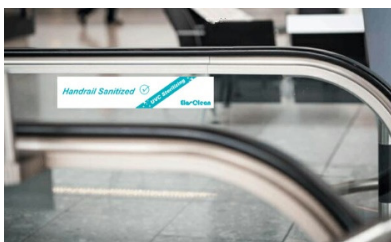


- ※Notes: 1, Unless otherwise stated, The tolerance is $\pm 0.5\text{mm}$. All dimensions are in millimeters
 2, Cable length: 3m or made to customer's order

Installation:



- Sterilization lamp is mounted internally to eliminate the risk of passenger entrapment
- Fully guided, handrail passes through the modules as it runs, giving consistent exposure to UV-C sterilization
- Multiple units can be installed on a single escalator (recommended for handrails with longer lengths)
- **Mounting bracket not included**



*Indication label will be provided with products to be pasted on balustrade

Sterilizing effect report:

4W Test Report

样品名称: 扶梯紫外杀菌灯
 Sample Description: 扶梯紫外杀菌灯
 样品型号: -
 Sample Model: -
 样品数量: 1pc
 Quantity: 1pc
 收样日期: 2020-06-28
 Receiving Date: 2020-06-28
 检测时间: 2020-06-29-2020-07-03
 Test Date: 2020-06-29-2020-07-03
 检测标准和方法: (消毒技术规范) (2002年版) 2.1.5.4细菌及其芽孢和真菌杀灭效果的测定及委托单位的委托
 Test Standard and Method: (消毒技术规范) (2002年版) 2.1.5.4细菌及其芽孢和真菌杀灭效果的测定及委托单位的委托
 检测要求: 委托单位送测扶梯紫外杀菌灯样品, 要求进行紫外杀菌测试
 Requirements: 委托单位送测扶梯紫外杀菌灯样品, 要求进行紫外杀菌测试
 备注: 以上样品及委托信息由委托单位提供
 Remarks: 以上样品及委托信息由委托单位提供
 检测设备: 1.手提式压力蒸汽灭菌器 (JSM280G-24)
 Equipment: 1.手提式压力蒸汽灭菌器 (JSM280G-24)
 2.电热恒温培养箱 (303-00AB)

分析检测结果 (Test Result)

测试微生物 Test Microorganisms	测试样品 Test Sample	测试条件 Test Conditions	杀菌率 Antibacterial Rate (%)
大肠杆菌 (Escherichia coli)8099	扶梯紫外杀菌灯	1.5cm, 45s	>99.99
		1.5cm, 60s	>99.99
白色念珠菌 (Candida albicans) ATCC10251	扶梯紫外杀菌灯	1.5cm, 45s	99.99
		1.5cm, 60s	>99.99

6W Test Report

样品名称: UVVC灯具
 Sample Description: UVVC灯具
 样品型号: ES-24V-60W
 Sample Model: ES-24V-60W
 样品数量: 1pc
 Quantity: 1pc
 收样日期: 2020-09-27
 Receiving Date: 2020-09-27
 检测时间: 2020-09-27-2020-09-29
 Test Date: 2020-09-27-2020-09-29
 检测环境: 23.5°C/50%RH
 Environment: 23.5°C/50%RH
 检测标准和方法: 根据《GB 28235-2020 紫外线消毒器卫生要求》附录G中, 物体表面消毒实验室微生物杀灭试验及委托单位的要求
 Test Standard and Method: 根据《GB 28235-2020 紫外线消毒器卫生要求》附录G中, 物体表面消毒实验室微生物杀灭试验及委托单位的要求
 检测要求: 委托单位送测UVVC灯具样品, 要求进行紫外杀菌测试
 Requirements: 委托单位送测UVVC灯具样品, 要求进行紫外杀菌测试
 备注: 以上样品信息由委托单位提供
 Remarks: 以上样品信息由委托单位提供
 检测设备: 1.手提式压力蒸汽灭菌器 (JSM280G-24)
 Equipment: 1.手提式压力蒸汽灭菌器 (JSM280G-24)
 2.电热恒温培养箱 (303-00AB)

分析检测结果 (Test Result)

测试样品 Test Sample	测试微生物 Test Microorganisms	测试条件 Test Conditions	杀菌率 Antibacterial Rate (%)
UVVC灯具	大肠杆菌 (Escherichia coli)8099	15cm, 15s	99.99

12W Test Report

样品名称: UVVC灯具
 Sample Description: UVVC灯具
 样品型号: ES-24V-60W
 Sample Model: ES-24V-60W
 样品数量: 1pc
 Quantity: 1pc
 收样日期: 2020-09-27
 Receiving Date: 2020-09-27
 检测时间: 2020-09-27-2020-09-29
 Test Date: 2020-09-27-2020-09-29
 检测环境: 23.5°C/50%RH
 Environment: 23.5°C/50%RH
 检测标准和方法: 根据《GB 28235-2020 紫外线消毒器卫生要求》附录G中, 物体表面消毒实验室微生物杀灭试验及委托单位的要求
 Test Standard and Method: 根据《GB 28235-2020 紫外线消毒器卫生要求》附录G中, 物体表面消毒实验室微生物杀灭试验及委托单位的要求
 检测要求: 委托单位送测UVVC灯具样品, 要求进行紫外杀菌测试
 Requirements: 委托单位送测UVVC灯具样品, 要求进行紫外杀菌测试
 备注: 以上样品信息由委托单位提供
 Remarks: 以上样品信息由委托单位提供
 检测设备: 1.手提式压力蒸汽灭菌器 (JSM280G-24)
 Equipment: 1.手提式压力蒸汽灭菌器 (JSM280G-24)
 2.电热恒温培养箱 (303-00AB)

分析检测结果 (Test Result)

测试样品 Test Sample	测试微生物 Test Microorganisms	测试条件 Test Conditions	杀菌率 Antibacterial Rate (%)
UVVC灯具	大肠杆菌 (Escherichia coli)8099	15cm, 15s	99.99

UVC Safety Test Report

样品名称: 扶梯紫外杀菌灯
 Sample Description: 扶梯紫外杀菌灯
 样品型号: -
 Sample Model: -
 样品数量: 1pc
 Quantity: 1pc
 收样日期: 2020-07-14
 Receiving Date: 2020-07-14
 检测时间: 2020-07-14-2020-07-17
 Test Date: 2020-07-14-2020-07-17
 检测环境: 22.3°C/62.0%RH
 Environment: 22.3°C/62.0%RH
 检测标准和方法: 根据《GB 28235-2020 紫外线消毒器卫生要求》附录G中, 物体表面消毒实验室微生物杀灭试验及委托单位的要求
 Test Standard and Method: 根据《GB 28235-2020 紫外线消毒器卫生要求》附录G中, 物体表面消毒实验室微生物杀灭试验及委托单位的要求
 检测要求: 委托单位送测扶梯紫外杀菌灯样品, 要求进行紫外杀菌测试
 Requirements: 委托单位送测扶梯紫外杀菌灯样品, 要求进行紫外杀菌测试
 备注: 以上样品信息由委托单位提供
 Remarks: 以上样品信息由委托单位提供
 检测设备: 紫外辐射计 (LS125-UVCCLED)
 Equipment: 紫外辐射计 (LS125-UVCCLED)

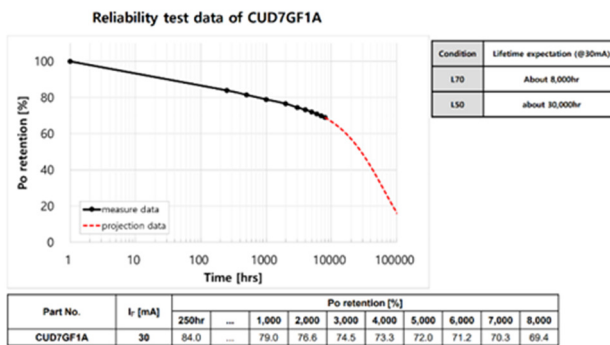
分析检测结果 (Test Result)

测试样品 Test sample	照射距离 (irradiation distance)	紫外线泄漏量 (UV leakage) (μW/cm²)
扶梯紫外杀菌灯	30cm, 位置 1	0
	30cm, 位置 2	0

测点距离紫外灯灯 30cm 处不同方位的辐射强度为 0。
 The UVC radiation intensity is 0 at the position of 30cm away from the lamp

LED Reliability Test Report

▼ CUD7GF1A Reliability test data @ 30mA, Ta=25°C



Notice:

- ✧ Power supply used has to be with suitable voltage and current.
- ✧ On lighting up the Lamp, please use power supply with 20% more than the rating power.
- ✧

Warning:

- ✧ Do not cut the wire while it is connected to the power supply.
- ✧ Do not exceed rated voltage.
- ✧ Do not force pulling the string
- ✧ Do not torture the string
- ✧ UV-C products present minimum risk when used by professionals who know how to use them. They must shield their eyes and skin to avoid light damage and severe injuries to the eyes and skin.
- ✧ At this moment, none of our UV-C products are certified or approved under any applicable laws as a medical device and as such, Signify and/or any of its group companies do not currently intend for them to be used as medical devices anywhere in the world