



“Exceeding Rational Expectations Every Day”

Introducing a Newly Designed Air-Circulating LED Panel Light with Antiseptic and Anti-Virus Nanometer Material

Patriot LED provides LED technologies to hospitals, major retailers, educational institutions, and large manufacturing concerns. Our expertise today is being applied to the implementation of cost-effective solutions to the COVID-19 epidemic and identifying sound technical and financial practices.

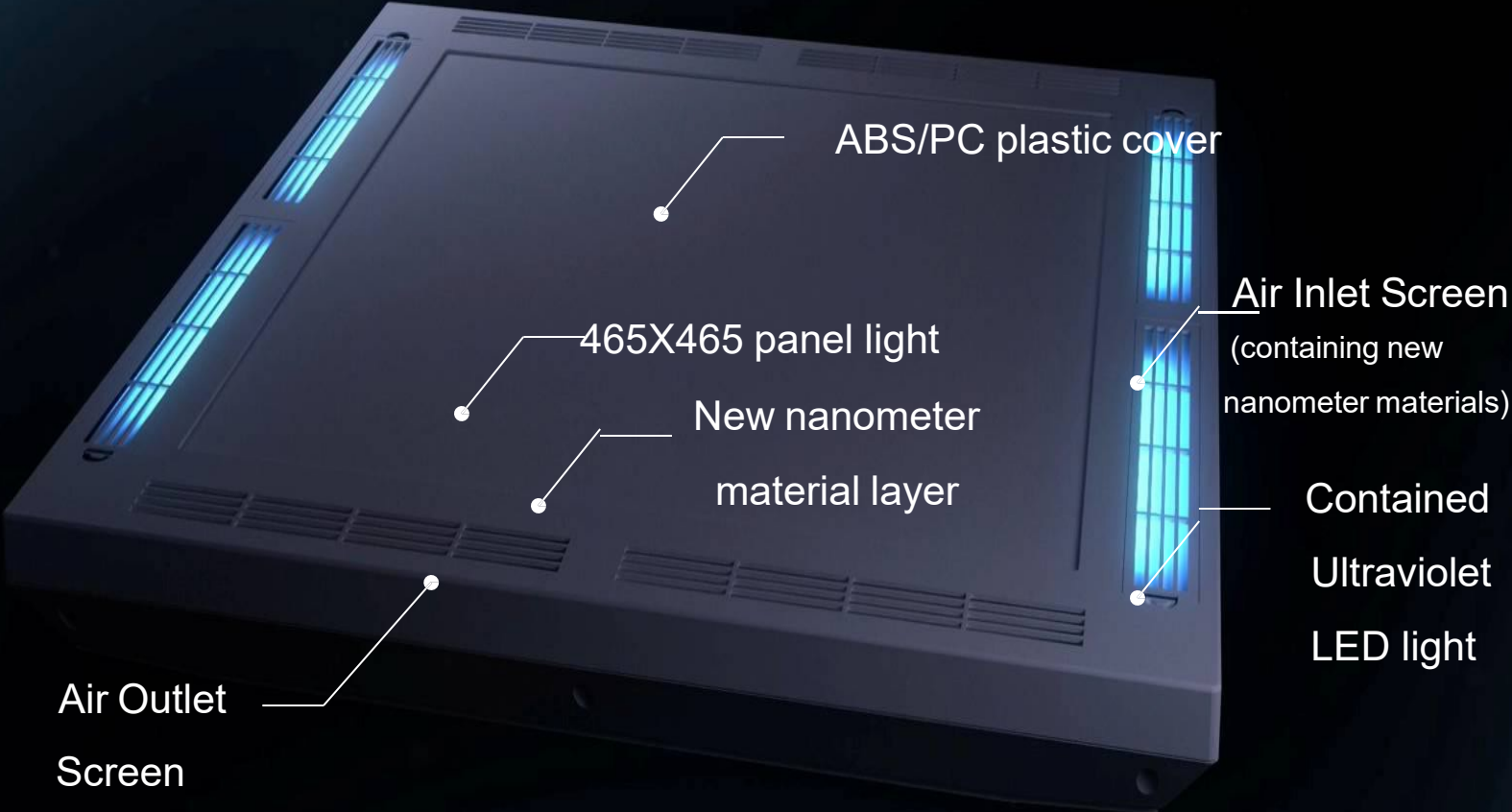


Product Features



- Quiet Recirculation and Cleaning of Air
- Automatically Kills Bacterial and Viruses
- Reduces Floating Particulates
- Eliminates TOVC Concentrations
- 2x2 Ambient Lighting Application
- Up To 130LM/W
- Input Voltage: 120V
- High-Tech Optical Design
- Widely Used For
- Ambient Operating Temperature: -20°C To 50°C
- THD:<20%





ABS/PC plastic cover

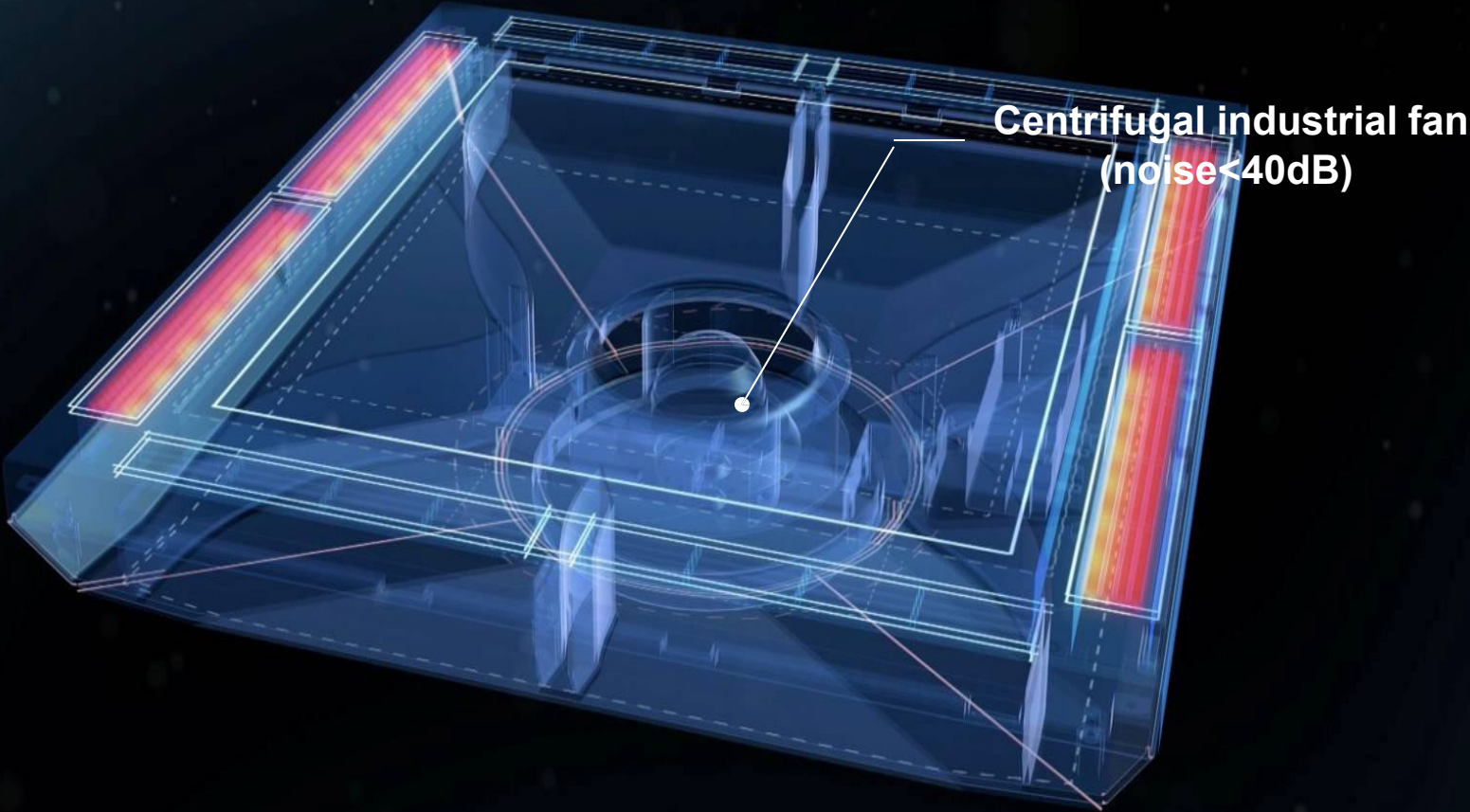
465X465 panel light

New nanometer material layer

Air Inlet Screen
(containing new nanometer materials)

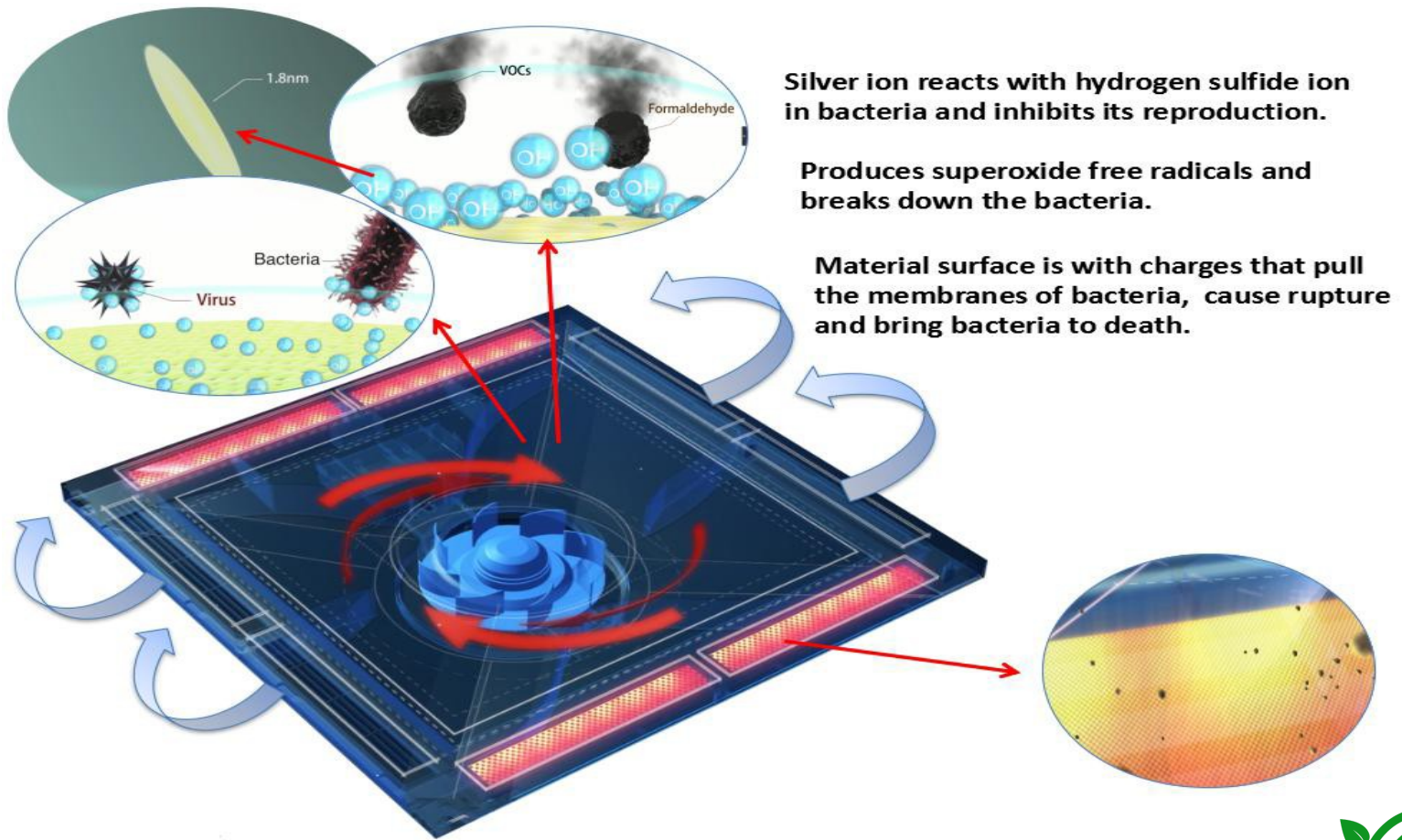
Contained Ultraviolet LED light

Air Outlet Screen



Centrifugal industrial fan
(noise < 40dB)

How It Works



Silver ion reacts with hydrogen sulfide ion in bacteria and inhibits its reproduction.

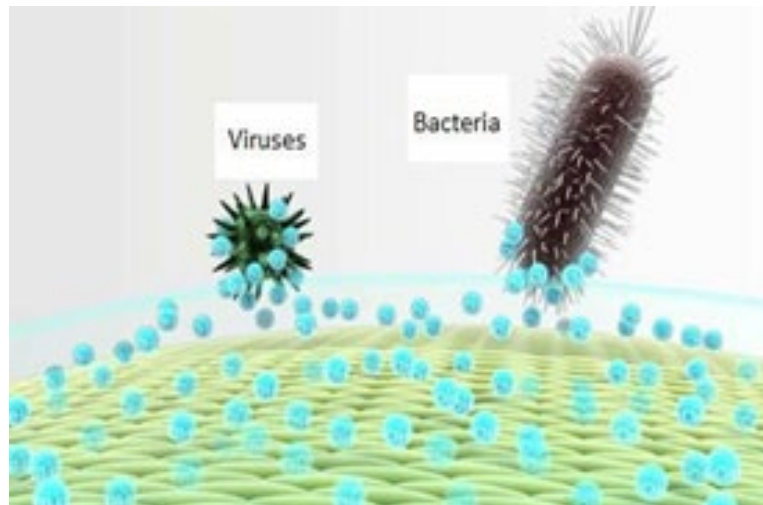
Produces superoxide free radicals and breaks down the bacteria.

Material surface is with charges that pull the membranes of bacteria, cause rupture and bring bacteria to death.



Nano-Composite Filter

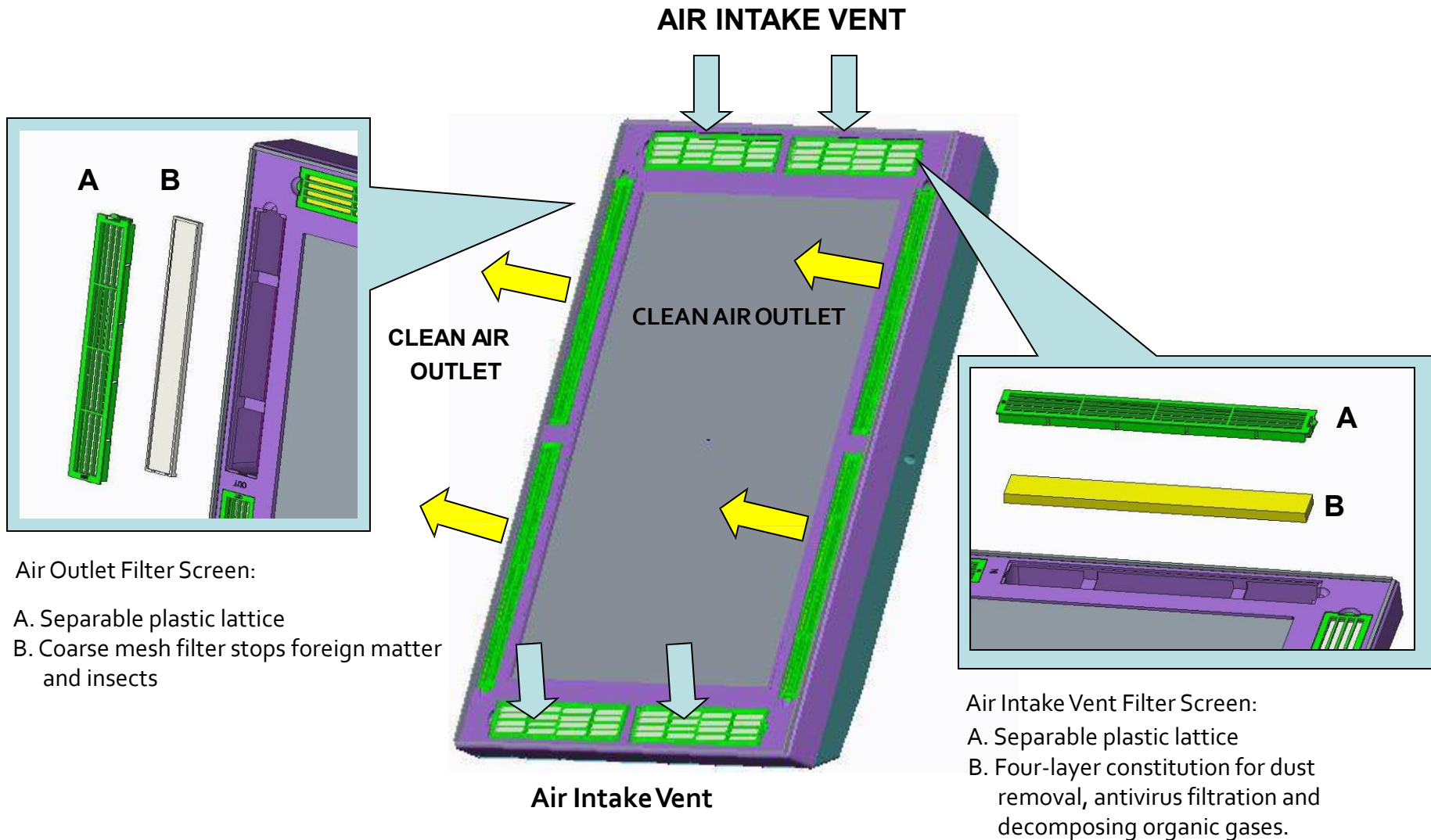
One of the emerging topics today is nanotechnology and nanoparticles (those less than 100 nanometers) to stop the novel COVID-19 virus.



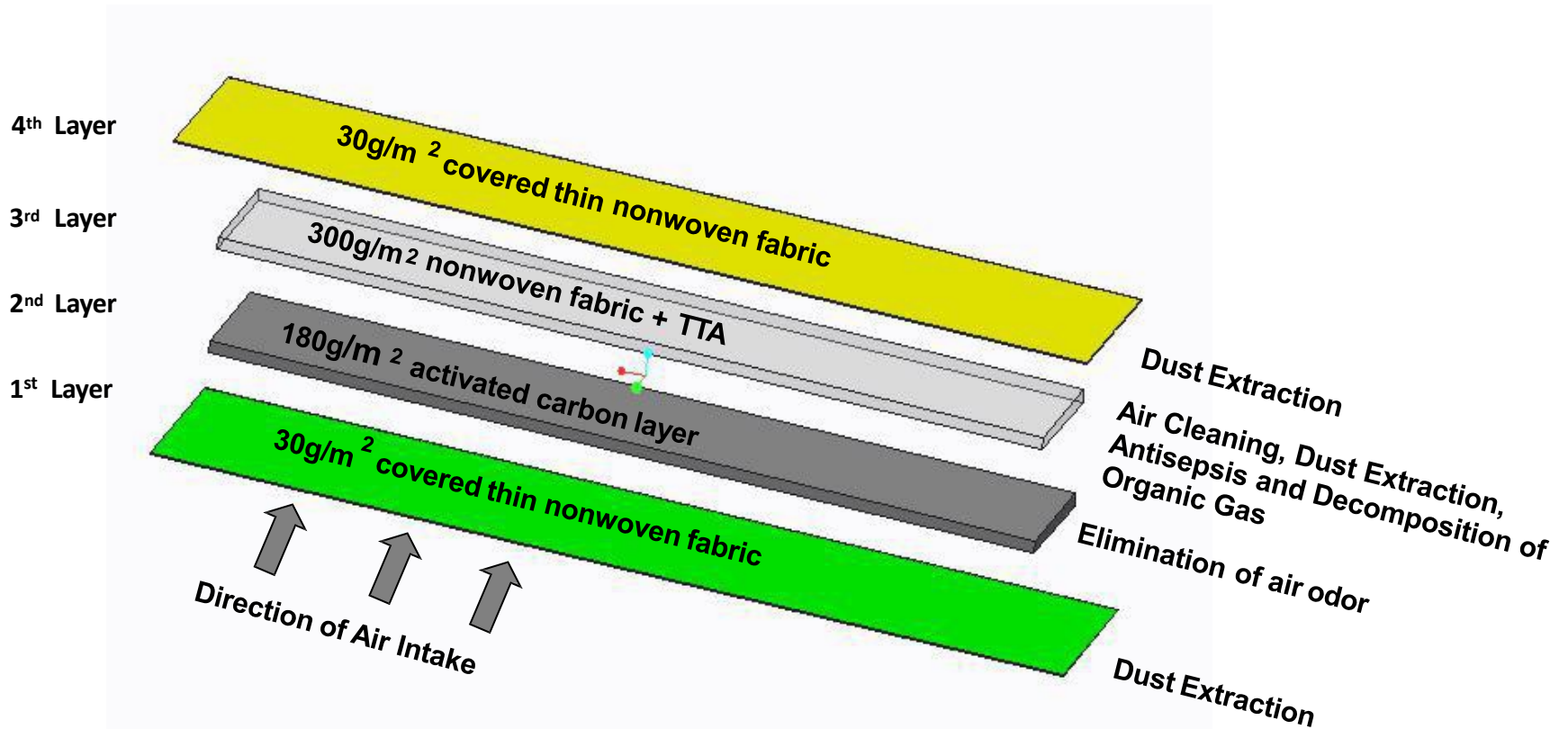
Emergence has successfully integrated an environmentally friendly nano composite material providing our customers with a multipurpose LED light fixture for different types of applications/areas of use.



Filter Operation Overview



Function of Air Intake Filter



f. Antiseptic Test for Panel Light

SGS

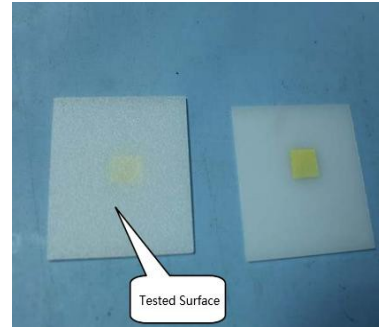
測試報告
 客戶名稱: 2024080800120
 日期: 2024/08/08
 頁數: 3/41

項目	規格	測試方法	測試結果	備註
菌落數	CFU/100cm ²	ISO 15843-2	1.0E+01	合格

SGS 檢驗合格

SGS 檢驗合格

SGS 檢驗合格



Shiny Surface
 Test(expanded
)
 Pass the SGS
 lab test

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Test and Verification for Anti-Viral Effect of New Nanometer Compound Material

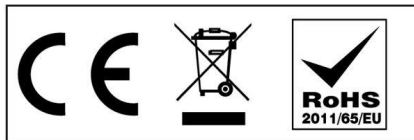
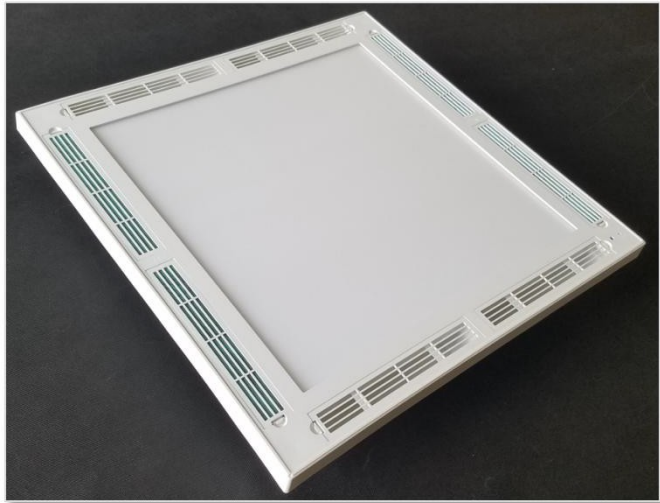
Type	Effect
H1N1	99.99% of virus is eliminated after 20 minutes
Enterovirus	99.99% of virus is eliminated after 20 minutes
Respiratory mixed virus	Inhibiting ability reaches 90.0%

The screenshot shows the FDA's public database for Establishment Registration & Device Listing. The page is titled "Establishment Registration & Device Listing" and includes a search bar and navigation tabs for various FDA categories. The main content area displays details for a specific device listing:

- Proprietary Name:** JM Material (JM-TTA), JM-TTA Antimicrobial, JM-TTA Antiseptic, JM-TTA Antiviral, JM-TTA Hand Sanitizer, JM-TTA Virus Away, JM-TTA Virus Quins, JM-TTA Virus Shield, JM-TTA91
- Classification Name:** DISINFECTANT, MEDICAL DEVICES
- Product Code:** LEJ
- Device Class:** 1
- Regulation Number:** 800.650
- Medical Specialty:** General Hospital
- Registered Establishment Name:** JM MATERIAL TECHNOLOGY, INC.
- Registered Establishment Number:** 391070940
- Owner/Operator Name:** JM Material Technology, Inc.
- Owner/Operator Number:** 10045149
- Establishment Operations:** Contract Manufacturer; Manufacturer

At the bottom of the page, there is a note: "Page Last Updated: 06/01/2020. Note: If you need help accessing information in different file formats, see Instructions for Downloading Viewers and Players. Language Assistance Available: Español | 繁體中文 | Tiếng Việt | 한국어 | Tagalog | Русский | العربية | Kreyòl Ayisyen | Français | Polski | Português | Italiano | Deutsch | العربية | English."





Reports



MicroBioTest Division



MicroBioTest Division

FINAL REPORT

VIRUCIDAL SUSPENSION EFFICACY TEST

Influenza A Virus (H1N1)

TEST AGENT

Nanocomposite Material

Author

Zheng Chen, M.S.

Performing Laboratory

MicroBioTest
Division of Microbac Laboratories, Inc.

105 Carpenter Drive
Sterling, Virginia 20164

Laboratory Project Identification Number

852-101

Sponsor

JM Material Technology Inc
O. 5F.-3, No. 40-2, Sec. 1, Minsheng N. Rd.
Guishan Township, Taoyuan County 333
Taiwan (R.O.C.)

FINAL REPORT

VIRUCIDAL SUSPENSION EFFICACY TEST

Enterovirus

TEST AGENT

Nanocomposite Material

Author

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超級登工業安全實驗室
Ultra Trace Industrial Safety Hygiene

測試報告

報告編號: UG/2016/CO159 日期: 2017年01月13日 頁數: 1 of 3

奇麗光電股份有限公司
71758 臺南市仁德區勝利一街18號

以下測試之樣品係由申請廠商所提供及確認:

產品名稱: 抗菌抗菌醫療平板燈
申請廠商: 奇麗光電股份有限公司
產品型號/批號: ---
生產或供應廠商: 奇麗光電股份有限公司
原產地: 台灣
樣品狀態: 請參看報告末頁樣品照片
製造日期: ---
有效期限: ---
送樣日期: 2016年12月15日
測試日期: 2016年12月15日 - 2017年01月13日
委託測試項目: 抗菌測試

測試方法: 本測試參考GB21551設計之容量化方法檢驗

測試結果: - 請見下頁 -

Signed for and on behalf of
SGS Taiwan Ltd.

Shin-Jyh Chen
Manager



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超級登工業安全實驗室
Ultra Trace Industrial Safety Hygiene

測試報告

報告編號: UG/2016/CO159 日期: 2017年01月13日 頁數: 2 of 3

奇麗光電股份有限公司
71758 臺南市仁德區勝利一街18號

測試結果:

測試項目	試驗4小時菌數 (CFU)	清潔效能百分比
金黄色葡萄球菌 (Staphylococcus aureus)	2.65 x 10 ³	---

測試項目	試驗2小時菌數 (CFU)	清潔效能百分比
金黄色葡萄球菌 (Staphylococcus aureus)	3.07 x 10 ³	98.8%

測試項目	試驗4小時菌數 (CFU)	清潔效能百分比
金黄色葡萄球菌 (Staphylococcus aureus)	8.33 x 10 ²	99.8%

測試項目	試驗8小時菌數 (CFU)	清潔效能百分比
金黄色葡萄球菌 (Staphylococcus aureus)	1.00 x 10 ⁰	99.9%

測試項目	試驗12小時菌數 (CFU)	清潔效能百分比
金黄色葡萄球菌 (Staphylococcus aureus)	0.00 x 10 ⁰	>99.9%

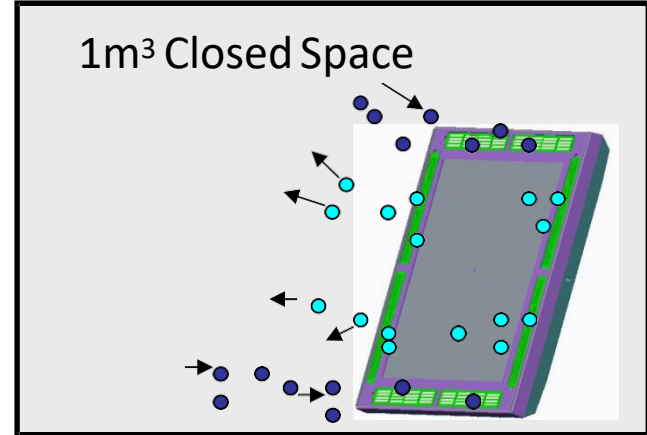
測試項目	試驗24小時菌數 (CFU)	清潔效能百分比
金黄色葡萄球菌 (Staphylococcus aureus)	<1	>99.9%

備註:

- 菌種編號: 金黄色葡萄球菌BCRC 10451; ATCC 6538P
- 本報告不詳菌數, 分即使用菌數。
- 測試報告僅就委託者之委託事項提供測試結果, 不對產品合法性做判斷。

- END -

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Specification Reference GB21551

(Test space is revised as large as 1 m³)

Infuse gaseous staphylococcus into one-cubic meter space and calculate ratio of natural colony number/ ratio of formaldehyde concentration before and after being placed into lamps and electric lights from which its antiseptic effect can be seen.

Staphylococcus:
Antiseptic rate after 24 hours >99%

Air- Circulating LED Panel Light SGS Formaldehyde Decomposition Test

SGS

TEST REPORT

Report No.: SHES170100053071 Issued date: 2017-03-09


Applicant's name: LINGHAUN
Chuangsheng Road, Songxia Industry Zone, Songgang Town, Nanhai, Foshan, Guangdong, China

Manufacturer: Same as applicant

Laboratory: SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
568 West Jinxi Road, Xinqiao, Songjiang, 201612 Shanghai, China

Product Description: LED Air Circulation Panel Light

Supplier Model No.: CPC14-B01



No. of samples: 1 pc

Date of Sample Received: 2017-01-08

Date of Test: 2017-01-08 to 2017-03-08

European EC Directive: N/A

Test Standard: Per client requirement

Test Item: Clean air delivery rate of Formaldehyde within 1 hour

Test Result: See the following pages

Remark/Note: None

Tested By: Cixin Xie Approved by: David Sun

SGS Member of the SGS Group (SIS 55)

Report No.: SHES170100053071

Concentration (mg/m³)

130
132
135
138
140
142
145
148
150

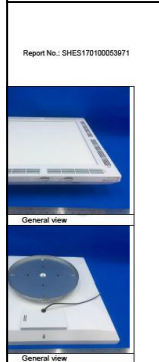
test data were recorded.

LRH
ometer(2111001)

Light

Report No.: SHES170100053071

Light



SGS Member of the SGS Group (SIS 55)

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SGS Member of the SGS Group (SIS 55)

Test time(min)	Formaldehyde concentration	Removal rate(%)
0	1.18	/
10	0.932	21.02%
20	0.715	39.41%
30	0.493	58.22%
40	0.396	66.44%
50	0.322	72.71%
60	0.276	76.61%

Pass the SGS Lab Test

Conduct the experiment according to

national standard GB18801-2015

Use 30-cubic meter chamber

**Decomposition and removal rate
of formaldehyde reaches 76.61%
in an hour.**

