METOLIGHT LED-RDL-CLAIR-UV

ASMETEC GmbH – Carl-Benz-Str. 4 – 67292 Kirchheimbolanden - Germany
www.asmetec-shop.de – info@asmetec.de – Tel: +49-6352-750680

Clean-Air LED-Light with Nanoparticle-Filter and UVC Desinfection

Optional with remote

RoHS 2011/65/EU

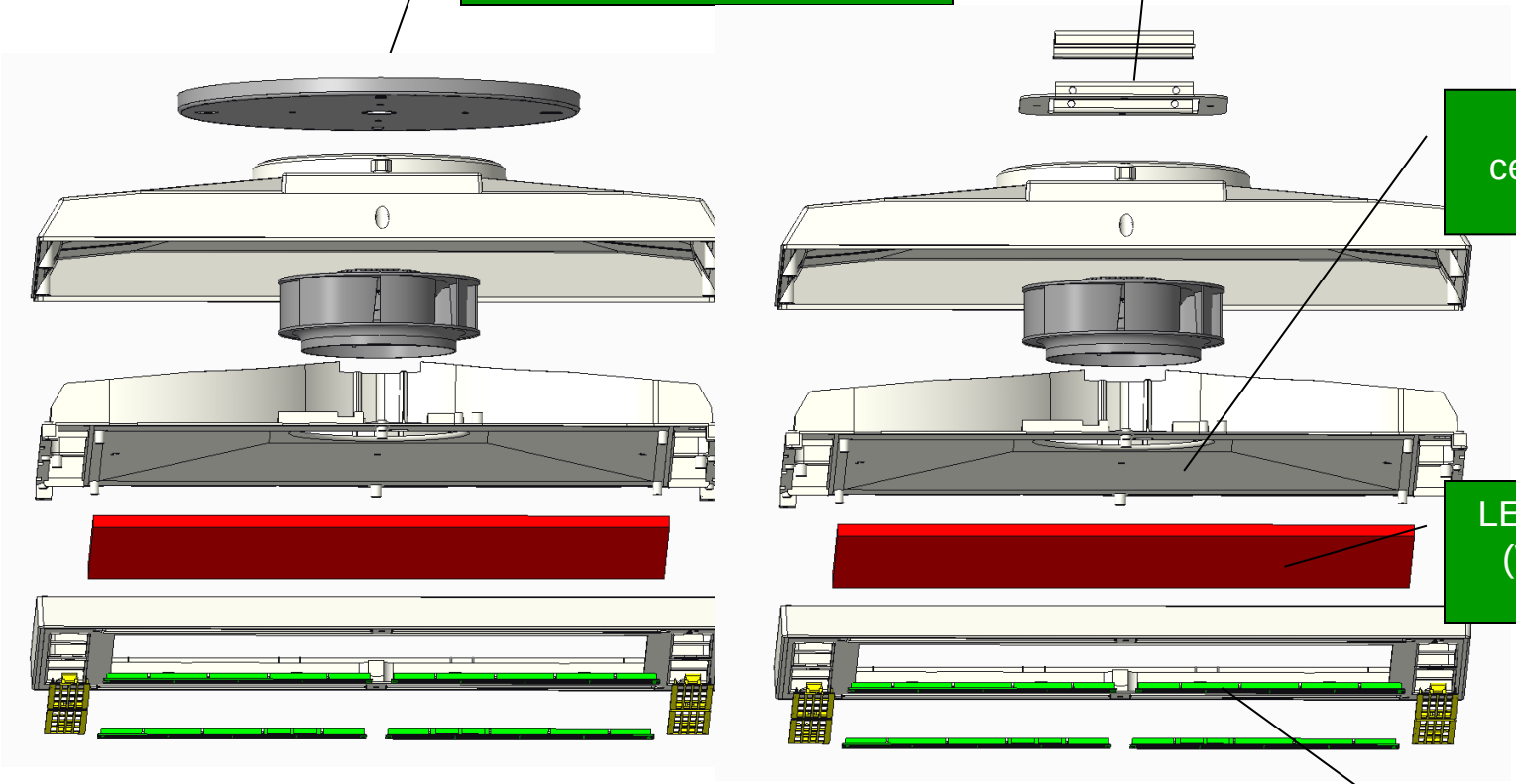
Product Features

- Cleaning the air, reducing air particles.
- It can Antibiosis, Antiviral, and effectively remove these virus, Including the H1N1, Escherichia coli, staphylococcus aureus, Candida albicans, pseudomonas aeruginosa, etc. Can eliminating indoors Formaldehyde, Benzene, Toluene, Xylene, Ammonia, TVOC concentration, etc.
- TVOC
- 24 hours guard function no matter the light on or off, if there is light to activate it.
- All indoor LED lights can make this function that the New Nanometer Material Antiseptic and Anti-virus .
- First choice for Hospital, School, Kindergarten, Office, Dust free room, etc.

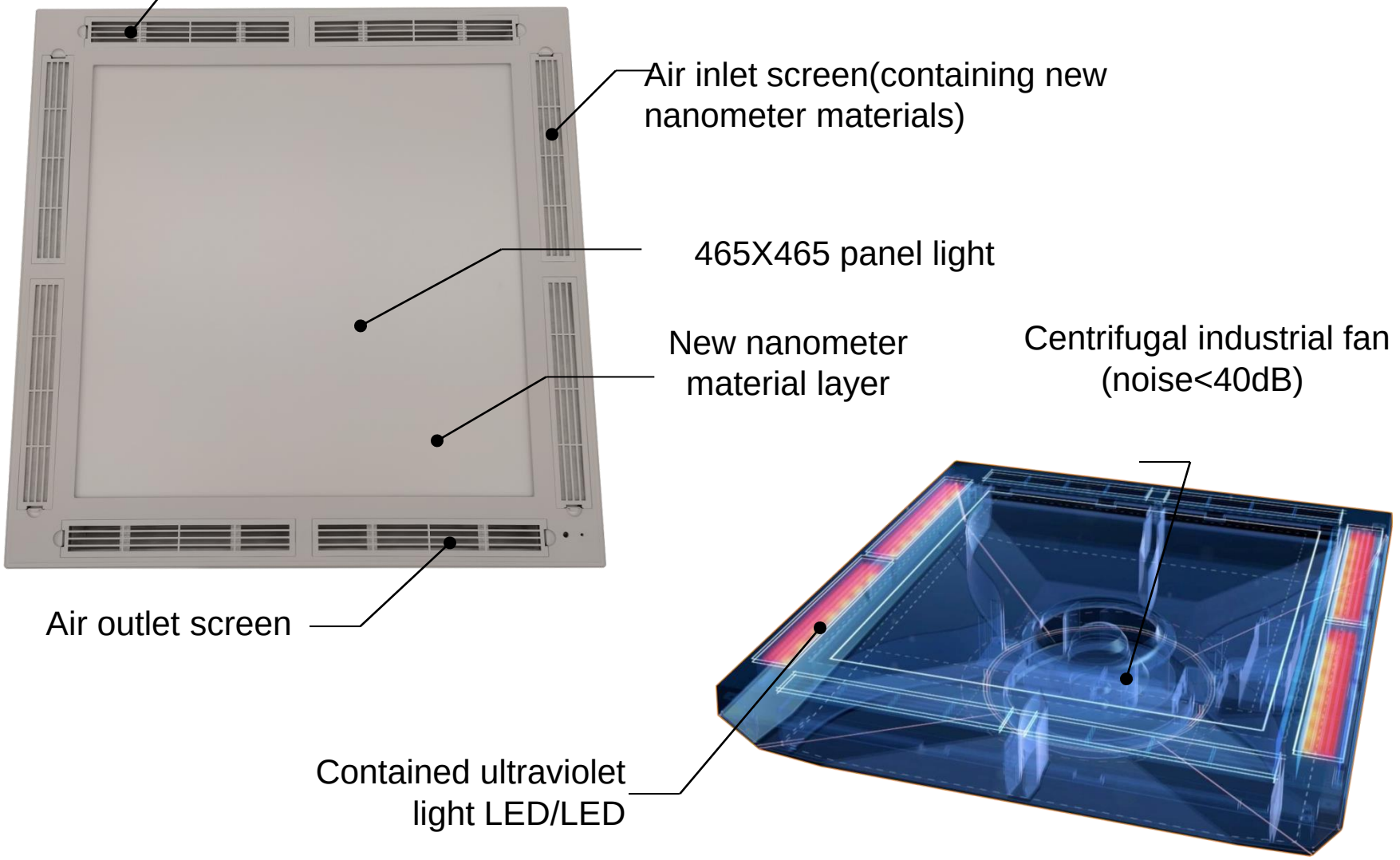
Specification

ITEM No	Metolight RDL-CLAIR-6060
Wattage	50W (LED panel light: 40W, Fan:10W)
Voltage	AC220-240V,50-60Hz/ AC100-277V,50-60Hz(Optional)
PF	＞0.9（Flicker free)
Lumens(lm)	4000
CRI Ra	＞80
CCT(K)	3000/4000/5000/6500(Optional)
UGR	＜23/＜19(Optional)
Control mode	NA/0-10V Dimmer/Dali Dimmer/2.4G Remote control/ (Optional)
Noise Level	<40dB
LGP	PMMA
Size(mm)	598×598×120
Lifetime(Hrs)	50000
Net weight.(kg)	7.9

Internal Structure

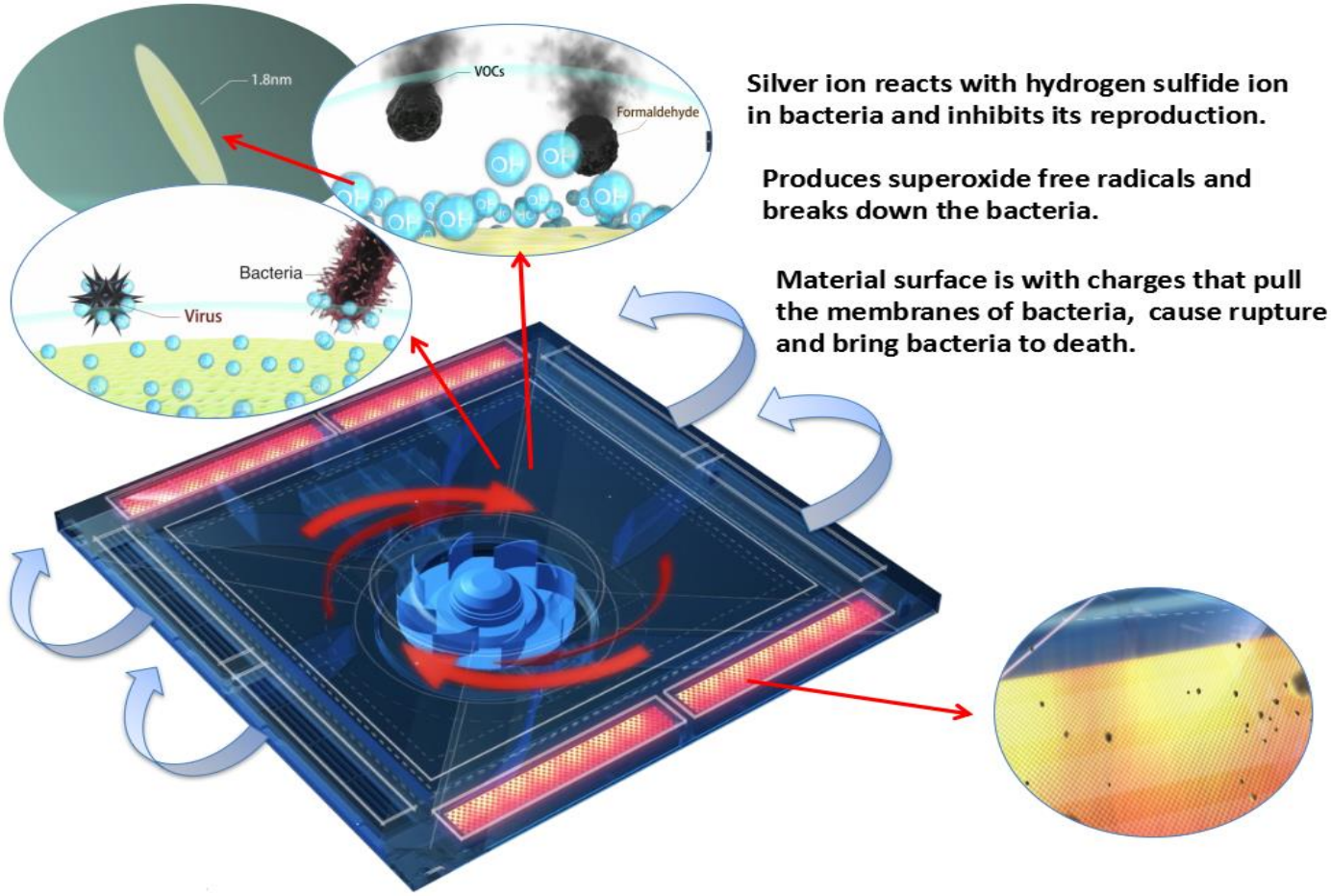


Structure Information

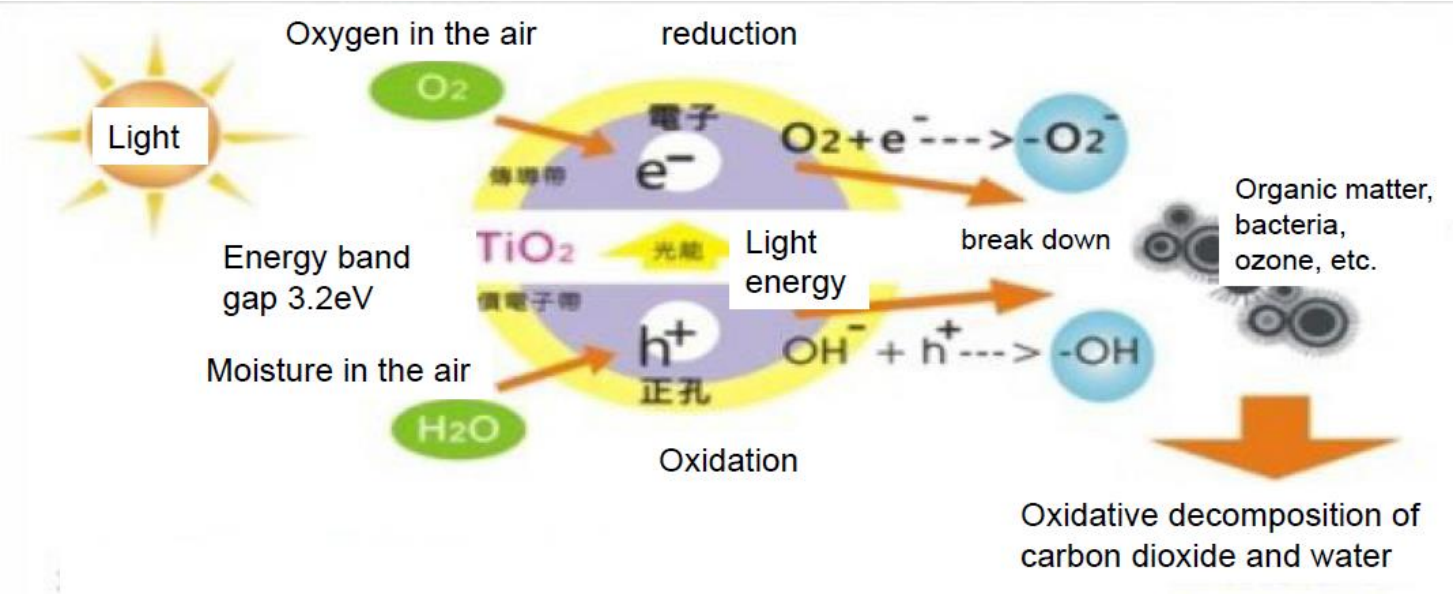


Action Principle for Antiseptic and Anti-viral Effect

Three kinds of antiseptic and antiviral mechanisms, offer you 24H all-weather protection against bacteria and virus with/ without light。

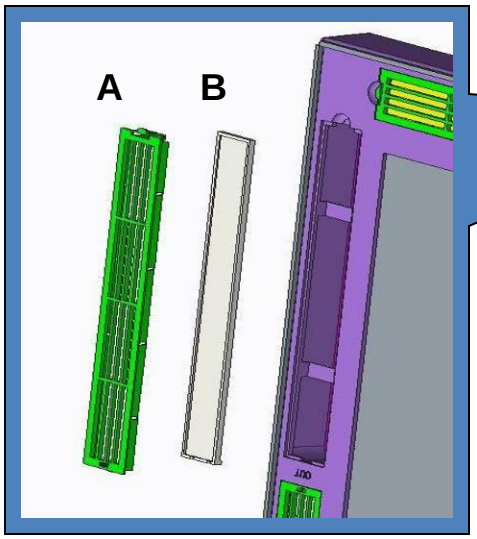


How does New nanometer material coating work?



The New nanometer material coating is an antimicrobial coating based on titanium dioxide nanoparticles and 100% natural and biodegradable, environmentally friendly ingredients. Its photocatalytic effects an intrinsic and natural part of titanium dioxide (TiO2), results in a super oxidizing effect when the treated surface is exposed to natural of artificial light. This oxidizing effect eliminates airborne pollutants, which are neutralized and also neutralizes viruses such as the Coronavirus and bacteria, turning all areas into auto-sanitizing surfaces just by being exposed to light. The coating not only eliminates and decomposes microbes, but leaves the surface perfectly protected with a continuous and long-term effect, efficiently reducing the transmission of diseases in public or crowded places (sectors). Any organic matter that comes into contact with the treated surface, either in the surrounding air or directly on the surface, will be decomposed, neutralized, or deactivated.

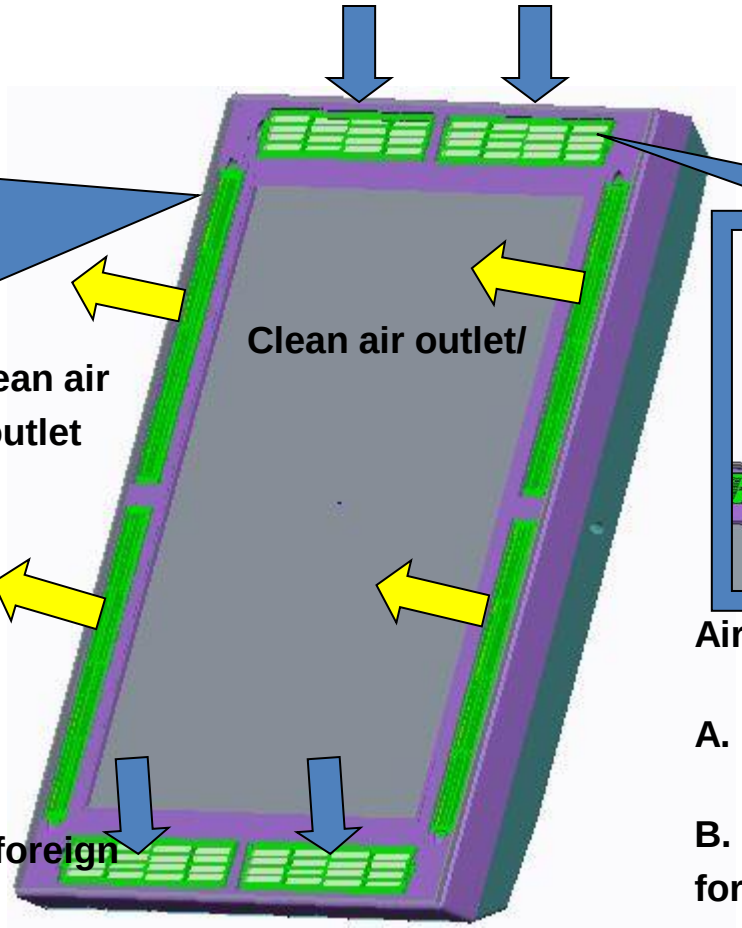
Specification and instructions of the filter

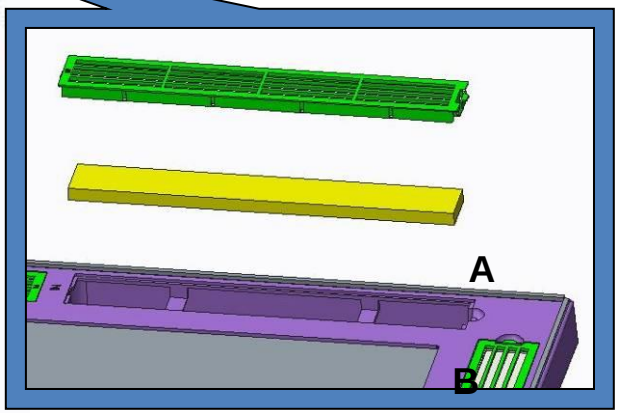


Air outlet filter screen

A. Separable plastic lattice

B. Coarse mesh filter, avoid foreign matters and insects inside.





Air intake vent filter screen

A. Separable plastic lattice

B. Four-layer constitution for dust removal, antivirus, decomposing organic gases and filtration

Composition and Function of Air Intake Vent Filter Screen

4rd Layer 30g/m² covered thin nonwoven fabric /覆盖30g/m2薄无纺布 — Dust extraction

3rd Layer 300g/m² nonwoven fabric + nanometer antiseptic materials/300g/m2 — Air cleaning, dust extraction, antisepsis and decomposition of organic gas

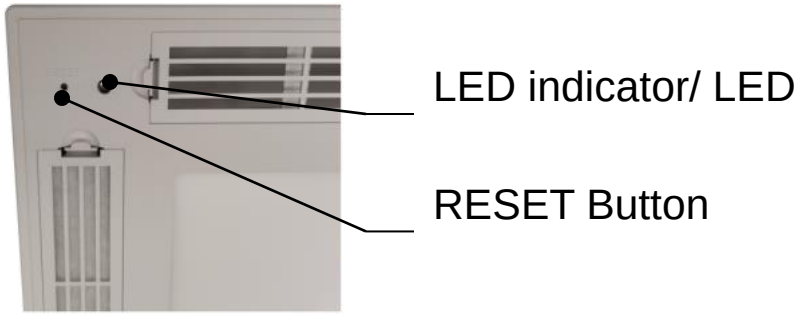
2nd Layer 180g/m² activated carbon layer /活性炭层180g/m² — Elimination of air odor, Deodorization

1st Layer 30g/m² covered thin nonwoven fabric /覆盖30g/m²薄无纺布 — Dust extraction

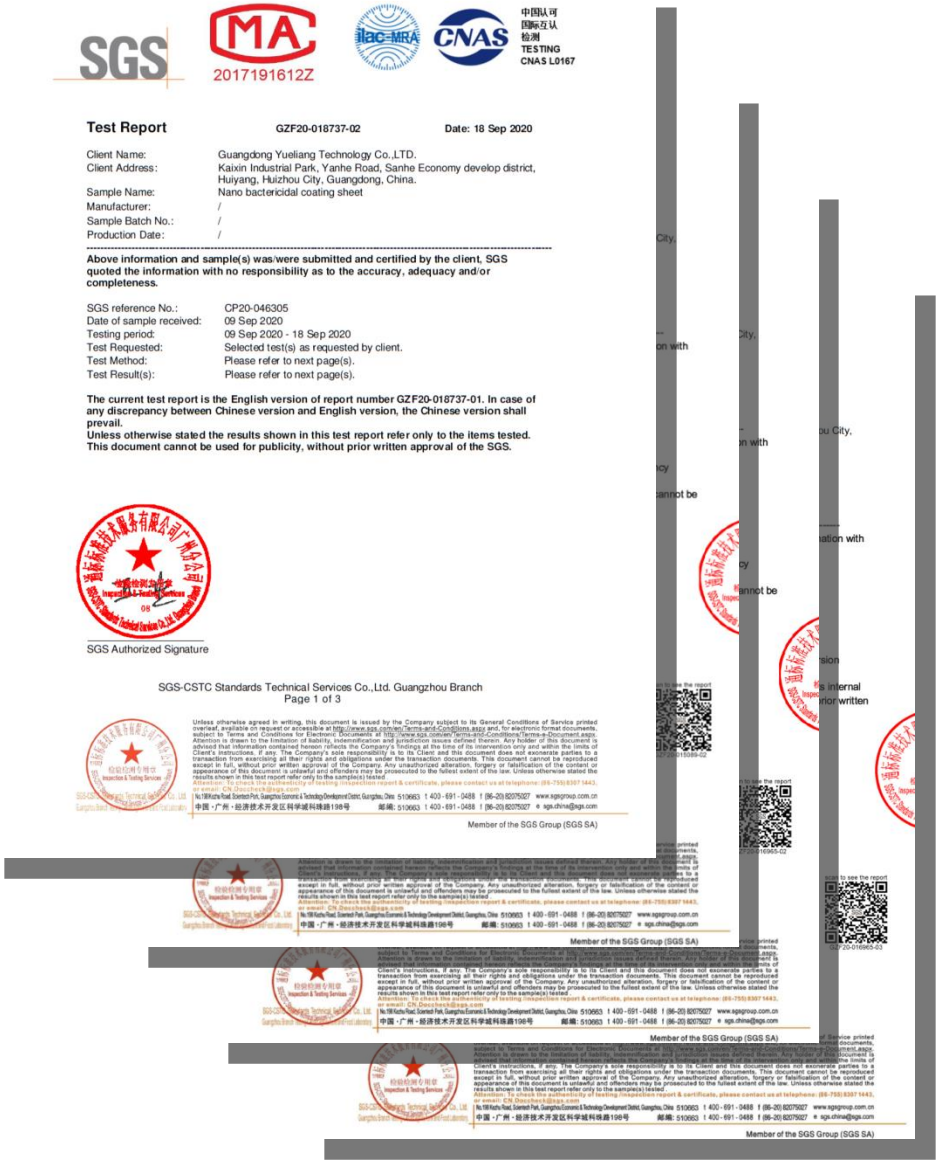
Entering direction of air

Instructions for Replacement of Filters

Working hours for filter screen	**2160 hours**
Phenomenon at the expiration of working hours	Fan power is turned off, Power supply of lighting system remains normal use LED indicator light shines.
Replacement of filters	Conforming to instructions for filter change on the cover. Open the filter mask, insert new filter screen, and cover the mask.
Pressing RESET button	Press the button on the left side of LED light for 4 seconds. LED light is switched off, and circulatory system power restarts. Timer recalculates until next change hour is due.



SGS report/ SGS



SGS MA 2017191612Z ilac-MRA CNAS 中国认可 国际互认 检测 TESTING CNAS L0167

Test Report GZF20-018737-02 Date: 18 Sep 2020

Client Name: Guangdong Yueliang Technology Co.,LTD.
Client Address: Kaixin Industrial Park, Yanhe Road, Sanhe Economy develop district, Huiyang, Huizhou City, Guangdong, China.
Sample Name: Nano bactericidal coating sheet
Manufacturer: /
Sample Batch No.: /
Production Date: /

Above information and sample(s) was/were submitted and certified by the client, SGS quoted the information with no responsibility as to the accuracy, adequacy and/or completeness.

SGS reference No.: CP20-046305
Date of sample received: 09 Sep 2020
Testing period: 09 Sep 2020 - 18 Sep 2020
Test Requested: Selected test(s) as requested by client.
Test Method: Please refer to next page(s).
Test Result(s): Please refer to next page(s).

The current test report is the English version of report number GZF20-018737-01. In case of any discrepancy between Chinese version and English version, the Chinese version shall prevail.
Unless otherwise stated the results shown in this test report refer only to the items tested. This document cannot be used for publicity, without prior written approval of the SGS.

SGS Authorized Signature

SGS-CSTC Standards Technical Services Co.,Ltd. Guangzhou Branch
Page 1 of 3

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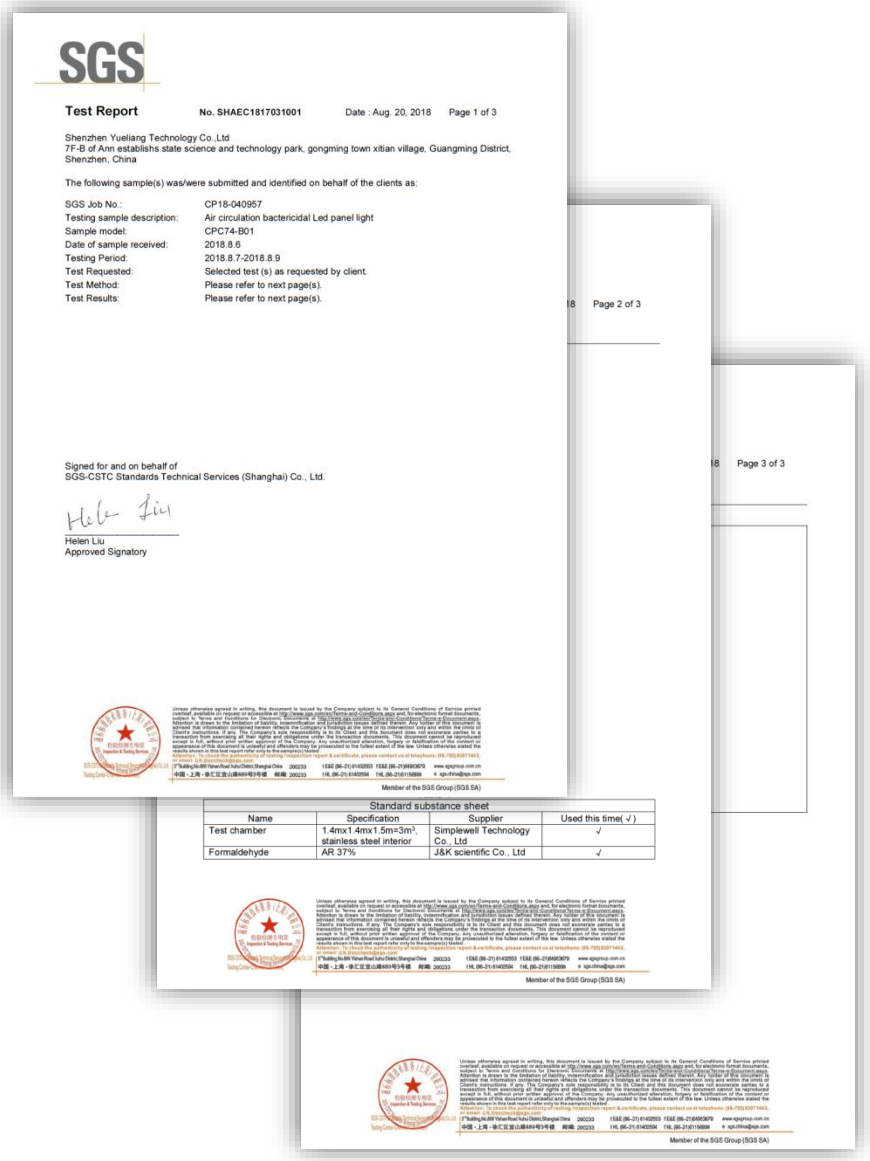
Bactericidal virus Test	
Name of test bacteria	**Average antibacterial rate(%)**
Candida albicans ATCC 10231	＞90%
Escherichia coli ATCC 8739	＞99.9%
Staphylococcus aureus ATCC 6538P	＞99.9%
Pseudomonas aeruginosa ATCC 9027	＞99.8%
H1N1	＞99.3%

Air-circuiting Panel Light SGS Formaldehyde Decomposition Test SGS



SGS

Test Report No. SHAEC1817031001 Date : Aug. 20, 2018 Page 1 of 3

Shenzhen Yueliang Technology Co.,Ltd
7F-B of Ann establishs state science and technology park, gongming town xitian village, Guangming District, Shenzhen, China

The following sample(s) was/were submitted and identified on behalf of the clients as:

SGS Job No.:	CP18-040957
Testing sample description:	Air circulation bactericidal Led panel light
Sample model:	CPC74-B01
Date of sample received:	2018.8.6
Testing Period:	2018.8.7-2018.8.9
Test Requested:	Selected test (s) as requested by client.
Test Method:	Please refer to next page(s).
Test Results:	Please refer to next page(s).

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

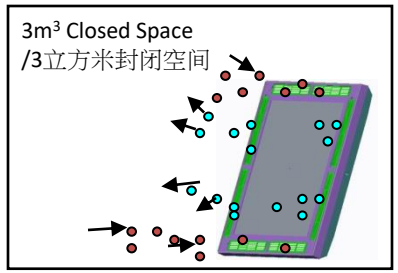
Helen Liu
Approved Signatory

Page 2 of 3

Standard substance sheet

Name	Specification	Supplier	Used this time(√)
Test chamber	1.4mx1.4mx1.5m=3m³, stainless steel interior	Simplewell Technology Co., Ltd	√
Formaldehyde	AR 37%	J&K scientific Co., Ltd	√

Page 3 of 3



Test time(min)	Formaldehyde concentration(mg/m³)
0	1.3201
2.5	1.2869
7.5	1.2857
12.5	1.2694
17.5	1.2296
22.5	1.2291
27.5	1.2247
32.5	1.1741
37.5	1.1670
R^2	0.9489
Ke(min^{-1})	0.0031
CADR(m^3/hr)	0.4

Pass the SGS Lab Test

Conduct the experiment according to national standard GB18801-2015.

GB18801 - 2015

Use 30-cubic meters experimental chamber.

SGS Antiseptic Test for Panel Light

Test Report GZF20-015089-02 Date: 05 Aug 2020

Client Name: Guangdong Yueliang Technology Co.,LTD.
Client Address: Kaixin Industrial Park, Yanhe Road, Sanhe Economy develop district, Huiyang, Huizhou City, Guangdong, China.

Sample Name: Nano bactericidal coating sheet
Manufacturer: /
Sample Batch No.: /
Production Date: /

Above information and sample(s) was/were submitted and certified by the client, SGS quoted the information with no responsibility as to the accuracy, adequacy and/or completeness.

SGS Reference No. : CP20-038565
Date of Sample Received : 28 Jul 2020
Testing Period : 28 Jul 2020 - 05 Aug 2020
Test Requested : Selected test(s) as requested by client.
Test Method : Please refer to next page(s).
Test Result(s) : Please refer to next page(s).

The current test report is the English version of report number GZF20-015089-01. In case of any discrepancy between Chinese version and English version, the Chinese version shall prevail.
Unless otherwise stated the results shown in this test report refer only to the items tested. This document cannot be used for publicity, without prior written approval of the SGS.

SGS Authorized Signature
SGS-CSTC Standards Technical Services Co.,Ltd. Guangzhou Branch
Page 1 of 3

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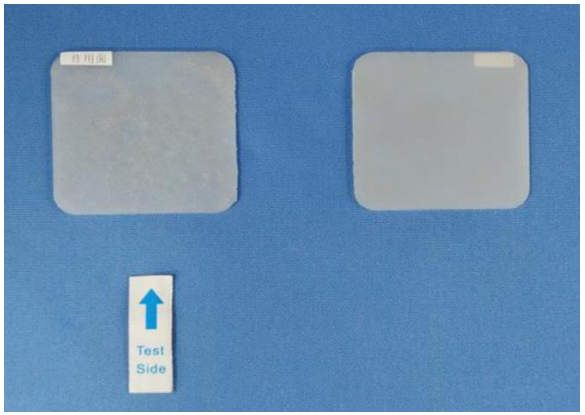


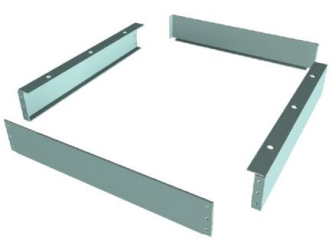
Shiny surface (expanded panel)
Antiseptic test

Pass the SGS lab test
Conduct the experiment according to national standard GB/T31402-2015/ISO 22196:2007(IDT)
GB/T31402-2015/ISO 22196:2007(IDT)
Removal rate of staphylococcus and Escherichia coli reaches 99%

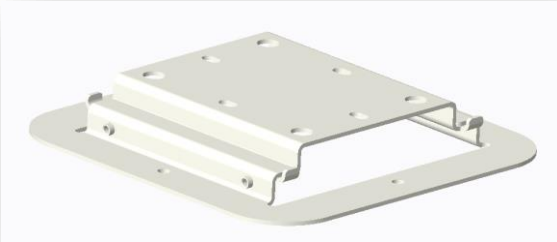
Applications

Optional Accessories

2.4G Remote control

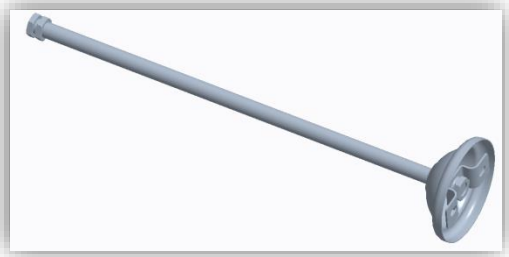


Ceiling frame



Ceiling mounting bracket

Sling mounting package



Pendant light Suit

SGS-Test Report H1N1 influenza virus

Test Report **GZF20-017387-01** **Date: 10 Oct 2020**

Sample Description:

Specimen No.	SGS Sample ID	Description
1	GZF20-017387.001	Equipment

TEST RESULT(S):

Air virus elimination effect*

Test Method: Refer to Technical Standard for Disinfection (2002 Ministry of Health P.R.China)-2.1.3

Virus and host cell	Action time	Serial Number	Air virus content ($TCID_{50}/m^3$)	Killing rate (%)
H1N1 *Influenza A virus* (A/PR/8/34) Host cell: MDCK	0（CK）	1	2.40×10^6	-
		2	3.24×10^6	-
		3	4.07×10^6	-
	2h	1	$< 1.62\times10^2$	> 99.99
		2	$< 1.62\times10^2$	> 99.99
		3	$< 1.62\times10^2$	> 99.99

Remark:

1.The natural decay of the microorganisms in the air had been eliminated.

2. *The test was carried out by external laboratory assessed as competent.

3. The sample was placed in a $1m^3$ test chamber for testing.

SGS-Test Report Escherichia Coli

Test Report GZF20-015089-02 Date: 05 Aug 2020

Sample Description :

Specimen No.	SGS Sample ID	Description
1	GZF20-015089.001	Block sample

Test Result(s) :

Test Requested : Test of antimicrobial activity

Test Method : GB/T 31402-2015/ISO 22196:2007(IDT) Plastics-Measurement of antibacterial activity on plastic surfaces

GZF20-015089.001

Test organism	Escherichia coli ATCC 8739
Test inoculum (CFU/mL)	5.3x10^5
Volume of test inoculum (mL)	0.2
U_0	3.82
Ut	5.03
At	-0.20
B (CFU/cm²)	1.1x10^5
C (CFU/cm²)	0.63
R	5.2
*Antibacterial activity (%)	>99.9

Notes :

1.The untreated sample is plastic film without antimicrobial activity, provided by SGS laboratory.
2.U_0: the average log value of bacteria number that recovered from the untreated sample immediately after inoculation (CFU/cm²).
3.Ut: the average log value of bacteria number that recovered from the untreated sample after "24 h" inoculation (CFU/cm²).
4.At: the average log value of bacteria number that recovered from the treated sample after "24 h" inoculation (CFU/cm²).
5.R: the value of antimicrobial activity, R=Ut-At.
6. *The calculation formula of the antibacterial activity rate is 【(B-C)/B】*100%;
B: arithmetic average of the numbers of bacteria obtained from untreated samples after 24 h incubation (CFU/cm²);
C: arithmetic average of the numbers of bacteria obtained from treated samples after 24 h incubation (CFU/cm²).
7.Pre-treatment: UV sterilization of both sides for 15min.

SGS-Test Report Staphylococcus

SGS

Test Report GZF20-016965-02 Date: 25 Aug 2020

Sample Description :

Specimen No.	SGS Sample ID	Description
1	GZF20-016965.001	Block sample

Test Result(s) :

Test Requested : Test of antimicrobial activity

Test Method : GB/T 31402-2015/ISO 22196:2007(IDT) Plastics-Measurement of antibacterial activity on plastic surfaces

GZF20-016965.001

Test organism	Staphylococcus aureus ATCC 6538P
Concentration of bacteria (CFU/mL)	1.9x10^6
Volume of test inoculum (mL)	0.2
U_0	4.35
Ut	5.94
At	-0.20
B (CFU/cm²)	8.7x10^5
C (CFU/cm²)	0.63
R	6.1
*Antibacterial activity (%)	>99.9

Notes :

1.The untreated sample is plastic film without antimicrobial activity, provided by SGS laboratory.
2.U_0: the average log value of bacteria number that recovered from the untreated sample immediately after inoculation (CFU/cm²).
3.Ut: the average log value of bacteria number that recovered from the untreated sample after "24 h" inoculation (CFU/cm²).
4.At: the average log value of bacteria number that recovered from the treated sample after "24 h" inoculation (CFU/cm²).
5.R: the value of antimicrobial activity, R=Ut-At.
6. *The calculation formula of the antibacterial activity rate is 【(B-C)/B】*100%;
B: arithmetic average of the numbers of bacteria obtained from untreated samples after 24 h incubation (CFU/cm²);
C: arithmetic average of the numbers of bacteria obtained from treated samples after 24 h incubation (CFU/cm²).
7.Pre-treatment: UV sterilization of both sides for 15min.

SGS-Test Report Formaldehyde

Table of Results:

Reference Standard: GB/T 18801-2015
Test Item: Clean air delivery rate (CADR) of Formaldehyde.
Clean air delivery rate (CADR) of Formaldehyde:0.4 m^3/h

Remark :
(1) Test chamber: $3m^3$
(2) Natural decay: K_n=0.0007(min^{-1})
(3) 1st round data for Formaldehyde CADR testing
Temperature:25.3 ℃ Humidity:59.0 Rh%

Test time (min)	Formaldehyde concentration (mg/m^3)
0.00	1.3201
2.50	1.2869
7.50	1.2857
12.50	1.2694
17.50	1.2296
22.50	1.2291
27.50	1.2247
32.50	1.1741
37.50	1.1670
R^2	0.9489
Ke(min^{-1})	0.0031
CADR (m^3/hr)	0.4

(4) 2nd round data for Formaldehyde CADR testing
Temperature:25.6 ℃ Humidity:57.8 Rh%

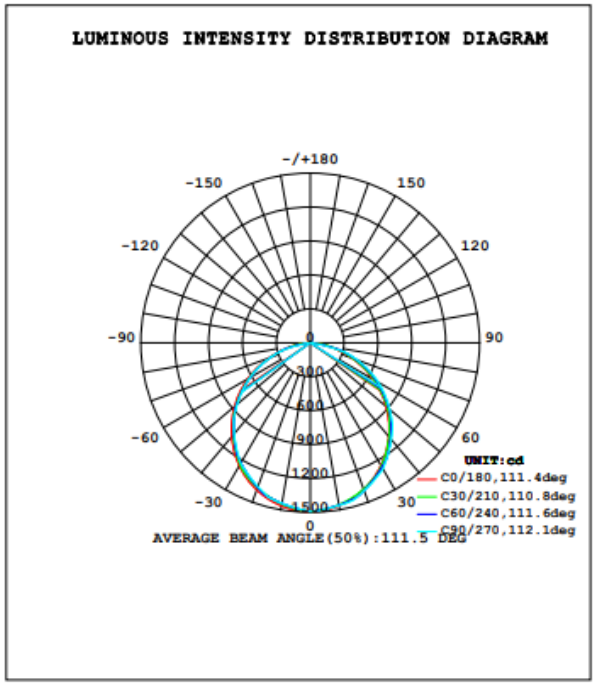
Test time (min)	Formaldehyde concentration (mg/m^3)
0.00	1.5449
2.50	1.5410
7.50	1.5186
12.50	1.5165
17.50	1.5134
22.50	1.4853
27.50	1.4512
32.50	1.4472
37.50	1.4285
R^2	0.9529
Ke(min^{-1})	0.0021
CADR (m^3/hr)	0.3

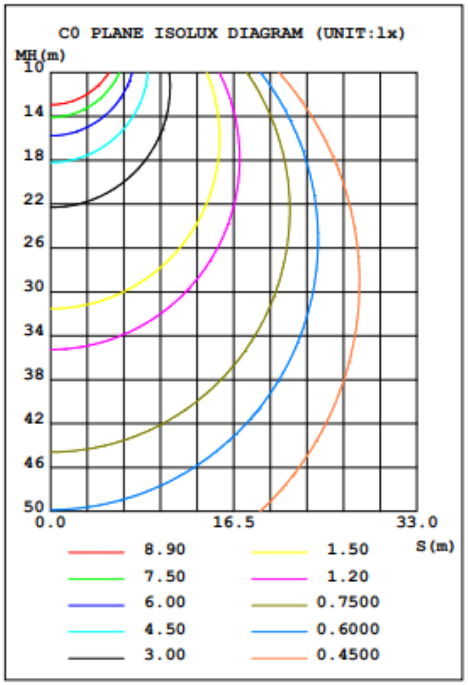
Table 1

Standard substance sheet			
Name	Specification	Supplier	Used this time(√)
Test chamber	1.4mx1.4mx1.5m=$3m^3$, stainless steel interior	Simplewell Technology Co., Ltd	√
Formaldehyde	AR 37%	J&K scientific Co., Ltd	√

SGS-Test Photometric Data

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.15 lm/W			
MODEL		Imax(cd)	1492	S/MH(C0/180)	1.25
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.23
RATED VOLTAGE(V)	230.0	TOTAL FLUX(lm)	4139.1	η UP,DN(C0-180)	0.0,51.3
NOMINAL FLUX(lm)	4139.12	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,48.7
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.35





C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2020-06-11

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:6.100m [K=1.0000]
Remarks: