TEST REPORT

Commission Regulation (EU) 2015/1188 implementing Directive 2009/125/EC with regard to ecodesign requirement for local space heater Annex II.1&III

Report reference No.....:	AOC250514003ER
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Date of issue ……..:	2025-05-22
Contents..... :	14 pages

Testing Laboratory……..:	Shenzhen AOCE Electronic Technology Service Co., Ltd
Address……..:	Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Testing location ……..:	Same as above
Applicant's name……..:	Ningbo Evinom Tech Co., Ltd
Address……..:	No. 3 Tongji Road, Simen Industrial Zone, Yuyao City, Ningbo City, Zhejiang Province. P.R. China
Test specification	
Standard……..:	Commission Regulation (EU) 2015/1188 and (EU) 2015/1186
Test procedure ……:	Commission Regulation (EU) 2015/1188 implementing Directive 2009/125/EC and (EU) 2015/1186 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to ecodesign requirements for local space heaters
Non-standard test method……..:	N/A
Test item description.....:	Infrared panel heater
Trade Mark.....:	N/A
Manufacturer..... :	Ningbo Evinom Tech Co., Ltd No. 3 Tongji Road, Simen Industrial Zone, Yuyao City, Ningbo City, Zhejiang Province. P.R. China
Factory.....:	Same as manufacturer
Model/Type reference.....:	P1200ST-B, P300ST, P450ST, P600ST, P700ST, P800ST, P1000ST, P1200ST, P300ST-B, P450ST-B, P600ST-B, P700ST-B, P800ST-B, P1000ST-B
Ratings..... :	Input: 220-240V~, 50Hz, 1200W

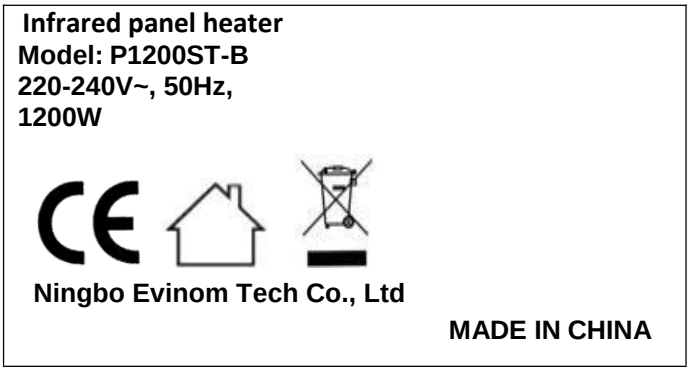
Test item particulars.....:
Classification of installation and use.....: Portable appliance **Supply Connection.....:** Non-detachable power cord with a plug
Possible test case verdicts: **- test case does not apply to the test object..... :** N/A **- test object does meet the requirement..... :** P (Pass) **- test object does not meet the requirement.....:** F(Fail)
Testing..... : **Date of receipt of test item.....:** 2025-04-25 **Date (s) of performance of tests.....:** 2025-04-25 to 2025-05-13
General remarks:
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. **Throughout this report a ☐ comma / ☒ point is used as the decimal separator.**
General product information: The whole testes are performed on model P1200ST-B. All models are the same except for the model names.

Item	Symbol	Value	Unit		Item	Unit
Heat output					**Type of heat input, for electric storage local space heaters only (select one)**	
Nominal heat output	P_{nom}	1,2	KW		manual heat charge control, with integrated thermostat	Not applicable
Minimum heat output (indicative)	P_{min}	0,35	KW		manual heat charge control with room and/or outdoor temperature feedback	Not applicable
Maximum continuous heat output	$P_{max,c}$	1,261	KW		electronic heat charge control with room and/or outdoor temperature feedback	Not applicable
Auxiliary electricity consumption					fan assisted heat output	Not applicable
At nominal heat output	el_{max}	1,106	KW		**Type of heat output/room temperature control (select one)**	
At minimum heat output	el_{min}	0,297	KW		single stage heat output and no room temperature control	[no]
In standby mode	el_{SB}	0,25	KW		Two or more manual stages, no room temperature control	[no]
					with mechanic thermostat room temperature control	[no]
					with electronic room temperature control	[yes]
					electronic room temperature control plus day timer	[yes]
					electronic room temperature control plus week timer	[yes]
					Other control options (multiple selections possible)	
					room temperature control, with presence detection	[yes]
					room temperature control, with open window detection	[yes]
					with distance control option	[yes]
					with adaptive start control	[yes]
					with working time limitation	[no]
					with black bulb sensor	[no]

Above information declared by client.

Copy of marking plate:

Rating Label



All labels are the same except their model name.

Remarks：The height dimension of WEEE symbol should not less than 7mm.

Summary of testing

Seasonal space heating energy efficiency	Limit	requirements
42%	≥38%	☒ Annex II.1 and III referred in (EU) 2015/1188

All test items: **Pass**

(EU) 2015/1188			
Clause	Requirement - Test	Result - Remark	Verdict
ANNEX II of (EU) 2015/1188			
Ecodesign requirements			
1	**Specific ecodesign requirements for seasonal space heating energy efficiency**		P
(a)	Local space heaters shall comply with the following requirements from 1 January 2018		P
	(i) seasonal space heating energy efficiency of open fronted local space heaters using gaseous or liquid fuel shall not be less than 42 %;		N/A
	(ii) seasonal space heating energy efficiency of closed fronted local space heaters using gaseous or liquid fuel shall not be less than 72 %;		N/A
	(iii)seasonal space heating energy efficiency of electric portable local space heaters shall not be less than 36 %;		P
	(iv)seasonal space heating energy efficiency of electric fixed local space heaters with a nominal heat output above 250 W shall not be less than 38 %;		N/A
	(v)seasonal space heating energy efficiency of electric fixed local space heaters with a nominal heat output equal or below 250 W shall not be less than 34 %;		N/A
	(vi) seasonal space heating energy efficiency of electric storage local space heaters shall not be less than 38,5 %;		N/A
	seasonal space heating energy efficiency of electric underfloor local space heaters shall not be less than 38 %;		N/A
	seasonal space heating energy efficiency of electric radiant local space heaters shall not be less than 35 %;		N/A
	seasonal space heating energy efficiency of electric visibly glowing radiant local space heaters with a nominal heat output above 1,2 kW shall not be less than 35 %;		N/A
	seasonal space heating energy efficiency of electric visibly glowing radiant local space heaters with a nominal heat output equal or below 1,2 kW shall not be less than 31 %;		N/A
	seasonal space heating energy efficiency of luminous local space heaters shall not be less than 85 %;		N/A
	seasonal space heating energy efficiency of tube local space heaters shall not be less than 74 %.		N/A
2.	**Specific ecodesign requirements for emissions**		N/A
(a)	From 1 January 2018 emissions of nitrogen oxides (NOx) from liquid and gaseous fuel local space heaters shall not exceed the following values:		N/A
	(i)emissions of NOx by open fronted local space heaters and closed fronted local space heaters using gaseous or liquid fuels shall not exceed 130 mg/kWhinput based on GCV;		N/A
	(ii)emissions of NOx by luminous local space heaters and tube local space heaters shall not exceed 200 mg/kWhinput based on GCV.		N/A
ANNEX III of (EU) 2015/1188			
1	**Measurements and calculations**	Remark	verdict
	For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for this purpose in the *Official Journal of the European Union*, or using other reliable, accurate and reproducible methods that take into account the generally recognised state-of-the-art methods. They shall meet the conditions set out in points 2 to 5.		P

(EU) 2015/1188			
Clause	Requirement - Test	Result - Remark	Verdict
2	**General conditions for measurements and calculations**		-
(a)	Declared values for nominal heat output and seasonal space heating energy efficiency shall be rounded to the nearest one decimal place.		P
(b)	Declared values for emissions shall be rounded to the nearest integer.		P
3	**General conditions for seasonal space heating energy efficiency**		-
(a)	The seasonal space heating energy efficiency (ηS) shall be calculated as the seasonal space heating energy efficiency in active mode ($\eta S,on$), corrected by contributions accounting for heat storage and heat output control, auxiliary electricity consumption and permanent pilot flame energy consumption.		P
(b)	The consumption of electricity shall be multiplied by a conversion coefficient (CC) of 2,5.	2.5	P
4	**General conditions for emissions**		-
(a)	For gaseous and liquid fuel local space heaters the measurement shall take account of emissions of nitrogen oxides (NOx). Emissions of nitrogen oxides shall be calculated as the sum of nitrogen monoxide and nitrogen dioxide, and expressed in nitrogen dioxide.		N/A
5	**Specific conditions for seasonal space heating energy efficiency**		-
(a)	The seasonal space heating energy efficiency of all local space heaters except commercial local space heaters is defined as: $\eta_S = \eta_{S,on} - 10\ \% + F(1) + F(2) + F(3) - F(4) - F(5)$		P
	The seasonal space heating energy efficiency of commercial local space heaters is defined as: $\eta_S = \eta_{S,on} - F(1) - F(4) - F(5)$		N/A
	Where:		-
	—$\eta S,on$ is the seasonal space heating energy efficiency in active mode, expressed in %, calculated as set out in point 5(b);		P
	— $F(1)$ is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency of electric storage local space heaters due to adjusted contributions for options for heat storage and output; and a negative contribution to seasonal space heating efficiency for commercial local space heaters due to adjusted contributions for options for the heat output, expressed in %;		P
	— $F(2)$ is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency due to adjusted contributions of controls of indoor heating comfort, the values of which are mutually exclusive, cannot be added to each other, expressed in %;		P
	— $F(3)$ is a correction factor accounting for a positive contribution to the seasonal space heating energy efficiency due to adjusted contributions of controls for indoor heating comfort the values of which can be added to each other, expressed in %;		P
	— $F(4)$ is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by		P

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	auxiliary electricity consumption, expressed in %;		
	— *F*(5) is a correction factor accounting for a negative contribution to the seasonal space heating energy efficiency by energy consumption of a permanent pilot flame, expressed in %.		P
(b)	The seasonal space heating energy efficiency in active mode is calculated as:		P
	For all local space heaters except electric local space heaters and commercial local space heaters: $\eta_{S,on} = \eta_{th,nom}$		P
	For electric local space heaters: $\eta_{S,on} = \frac{1}{CC} \cdot \eta_{th,on}$		P
	For commercial local space heaters: $\eta_{S,on} = \eta_{S,th} \cdot \eta_{S,RF}$		N/A
	For tube local space heaters: $\eta_{S,th} = (0,15 \cdot \eta_{th,nom} + 0,85 \cdot \eta_{th,min}) - F_{env}$		N/A
	Table 4 Envelope loss factor of the heat generator		-
	Thermal transmittance of envelope (U) / U ≤ 0,5 / 2,2 % 0,5 < U ≤ 1,0 / 2,4 % 1,0 < U ≤ 1,4 / 3,2 % 1,4 < U ≤ 2,0 / 3,6 % U > 2,0 / 6,0 %		N/A
	The emission efficiency of commercial local space heaters is calculated as follows: $\eta_{S,RF} = \frac{(0,94 \cdot RF_S) + 0,19}{(0,46 \cdot RF_S) + 0,45}$	Domestic use only	N/A
	Where:		N/A
	—*RFS* is the radiant factor of the commercial local space heater, expressed in %.		N/A
	For all commercial local space heaters except tube systems:		N/A
	$RF_S = 0,15 \cdot RF_{nom} + 0,85 \cdot RF_{min}$		N/A
	Where: — *RFnom*, is the radiant factor at nominal heat output, expressed in %; — *RFmin*, is the radiant factor at minimum heat output, expressed in %.		N/A
	For tube systems:	Not tube type	N/A
	$RF_S = \sum_{i=1}^{n} (0,15 \cdot RF_{nom,i} + 0,85 \cdot RF_{min,i}) \cdot \frac{P_{heater,i}}{P_{system}}$		N/A
	Where: — *RFnom,i*, is the radiant factor per tube segment at nominal heat output, expressed in %; — *RFmin,i*, is the radiant factor per tube segment at minimum heat output, expressed in %; — *Pheater,i*, is the heat output per tube segment, expressed in kW, based on GCV; — *Psystem*, is the heat output of the complete tube system, expressed in kW, based on GCV.		N/A

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Clause	Requirement - Test	Result - Remark	Verdict

	The above equation only applies if the construction of the burner, tubes and reflectors of the tube segment as applied in the tube system is identical to a single tube local space heater and the settings that determine the performance of a the tube segment are identical to those of a single tube local space heater.			N/A
(c)	The correction factor *F*(1) accounting for a positive contribution to the seasonal space heating efficiency due to adjusted contributions of controls for heat input and output and if the heat is distributed through natural or fan assisted convection for electric storage local space heaters and a negative contribution for commercial local space heaters related to the capability of the product of regulating its heat output.			P
	For electric storage local space heaters the heat output correction factor *F*(1) is calculated as follows:			N/A
	In case the product is equipped with one of the (mutually exclusive) options shown in table 5, the correction factor *F*(1) shall be increased with the corresponding value of that option.			N/A
	Table 5 Correction factor *F*(1) for electric storage local space heaters			N/A
	If the product is equipped with (only one option may apply):	F(1) is increased by		N/A
	Manual heat charge control, with integrated thermostat	0,0 %		
	Manual heat charge control with room and/or outdoor temperature feedback	2,0 %		
	Electronic heat charge control with room and/or outdoor temperature feedback or controlled by energy supplier	3,5 %		
	In case the heat output of the electric storage local space heater is assisted by a fan, an additional 1,5 % shall be added to *F*(1).			N/A
	For commercial local space heaters the heat output correction factor is calculated as follows:			N/A
	Table 6 Correction factor *F*(1) for commercial local space heaters			N/A
	If the heat output control type of the products is:	F(1) is calculated as:		N/A
	Single stage	$F(1) = 5\ \%$		N/A
	Two stage	$F(1) = 5\ \% - \left(2{,}5\ \% \cdot \frac{P_{nom} - P_{min}}{30\ \% \cdot P_{nom}}\right)$		N/A
	Modulating	$F(1) = 5\ \% - \left(5{,}0\ \% \cdot \frac{P_{nom} - P_{min}}{40\ \% \cdot P_{nom}}\right)$		N/A
	The minimum value of the correction factor F(1) for two stage commercial local space heaters is 2,5 %, and for modulating commercial local space heaters is 5 %.			N/A
	For local space heaters not being electric storage heaters or commercial local space heaters the correction factor *F*(1) shall be 0 (zero).		F(1)=0%	P
(d)	The correction factor *F*(2) accounting for a positive contribution to the seasonal space heating efficiency due to adjusted contributions of controls for indoor heating comfort, the values of which are mutually exclusive or cannot be added to each			P

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Clause	Requirement - Test	Result - Remark	Verdict

	other, is calculated as follows:							
	For all local space heaters the correction factor *F*(2) is equal to one of the factors according to Table 7, depending on which control characteristic applies. Only one value can be selected.							P
	Table 7 Correction factor *F*(2)					F(2)=3,0%		P
	If the product is equipped with (only one option may apply):	F(2) for electric local space heaters					for local space heaters using gaseous or liquid fuels	-
		Portable	Fixed	Storage	Underfloor	Radiant		
	Single stage heat output, no room temperature control	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	
	Two or more manual stages, no temperature control	1,0 %	0,0 %	0,0 %	0,0 %	2,0 %	1,0 %	
	With mechanic thermostat room temperature control	6,0 %	1,0 %	0,5 %	1,0 %	1,0 %	2,0 %	
	With electronic room temperature control	7,0 %	3,0 %	1,5 %	3,0 %	2,0 %	4,0 %	
	With electronic room temperature control plus day timer	8,0 %	5,0 %	2,5 %	5,0 %	3,0 %	6,0 %	
	With electronic room temperature control plus week timer	9,0 %	7,0 %	3,5 %	7,0 %	4,0 %	7,0 %	
	The *F*(2) correction factor does not apply to commercial local space heaters.							N/A
(e)	The correction factor *F*(3) accounting for a positive contribution to the seasonal space heating efficiency due to adjusted contributions of controls for indoor heating comfort, the values of which can be added to each other, is calculated as follows:							P
	For all local space heaters the correction factor *F*(3) is the summation of the values according to Table 8, depending on which control characteristic(s) applies.					None of function in table 2		P
	Table 8 Correction factor *F*(3)					F(3)= 0,0%		P
	If the product is equipped with (multiple options may apply):	F(3) for electric local space heaters					for local space heaters using gaseous or liquid fuels	-
		Portable	Fixed	Storage	Underfloor	Radiant		
	Room temperature control with presence detection	1,0 %	0,0 %	0,0 %	0,0 %	2,0 %	1,0 %	
	Room temperature control with open window detection	1,0 %	1,0 %	0,5 %	1,0 %	1,0 %	1,0 %	
	With distance control option	0,0 %	1,0 %	0,5 %	1,0 %	1,0 %	1,0 %	
	With adaptive start control	0,0 %	1,0 %	0,5 %	1,0 %	0,0 %	0,0 %	

(EU) 2015/1188								
Clause	Requirement - Test					Result - Remark		Verdict
	With working time limitation	0,0 %	0,0 %	0,0 %	0,0 %	1,0 %	0,0 %	
	With black bulb sensor	0,0 %	0,0 %	0,0 %	0,0 %	1,0 %	0,0 %	
(f)	The auxiliary electricity use correction factor *F*(4) is calculated as:							P
	This correction factor takes into account the auxiliary electricity use during on-mode and standby-mode operation.							P
	For electric local space heaters the correction is calculated as follows:							P
	The auxiliary electricity use correction factor *F*(4) is calculated as: $F(4) = CC \cdot \frac{\alpha \cdot el_{sb}}{P_{nom}} \cdot 100[\%]$							P
	Where: — *elsb* is the standby electric power consumption, expressed in kW; — *Pnom* is the nominal heat output of the product, expressed in kW; — *α* is a factor taking into account whether the product complies with Commission Regulation (EC) No 1275/2008 (1): — if the product complies with the limit values set in Regulation (EC) No 1275/2008, α is by default 0 (zero), — if the product does not comply with the limit values set in Regulation (EC) No 1275/2008, α is by default 1,3.							P
	For local space heaters using gaseous or liquid fuels the auxiliary electricity use correction is calculated as follows: $F(4) = CC \cdot \frac{0,2 \cdot el_{max} + 0,8 \cdot el_{min} + 1,3 \cdot el_{sb}}{P_{nom}} \cdot 100[\%]$							N/A
	Where: — *elmax* is the electric power consumption at nominal heat output, expressed in kW; — *elmin* is the electric power consumption at minimum heat output, expressed in kW. In case the product does not offer a minimum heat output the value for the electric power consumption at nominal heat output shall be used; — *elsb* is the electric power consumption of the product while in standby mode, expressed in kW; — *Pnom* is the nominal heat output of the product, expressed in kW.							-
	For commercial local space heaters the auxiliary electricity use correction factor is calculated as follows: $F(4) = CC \cdot \frac{0,15 \cdot el_{max} + 0,85 \cdot el_{min} + 1,3 \cdot el_{sb}}{P_{nom}} \cdot 100[\%]$							N/A
(g)	The correction factor *F*(5) related to the energy consumption of a permanent pilot flame is calculated as follows:							F(5)=0% P
	This correction factor takes into account the permanent pilot flame power requirement.							No pilot flame N/A
	For local space heaters using gaseous or liquid fuels it is calculated as: $F(5) = 0,5 \cdot \frac{P_{pilot}}{P_{nom}} \cdot 100[\%]$							N/A
	Where: — Ppilot is the pilot flame consumption, expressed in kW; — Pnom is the nominal heat output of the product, expressed in kW.							N/A

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Clause	Requirement - Test	Result - Remark	Verdict
	For commercial local space heaters the correction factor is calculated as: $$F(5) = 4 \cdot \frac{P_{pilot}}{P_{nom}} \cdot 100[\%]$$		N/A
	In case the product has no permanent pilot light (flame) Ppilot is 0 (zero).		N/A
	Where: — *Ppilot* is the pilot flame consumption, expressed in kW; — *Pnom* is the nominal heat output of the product, expressed in kW.		N/A

Attachment No. 1: Photo documents

Fig.1

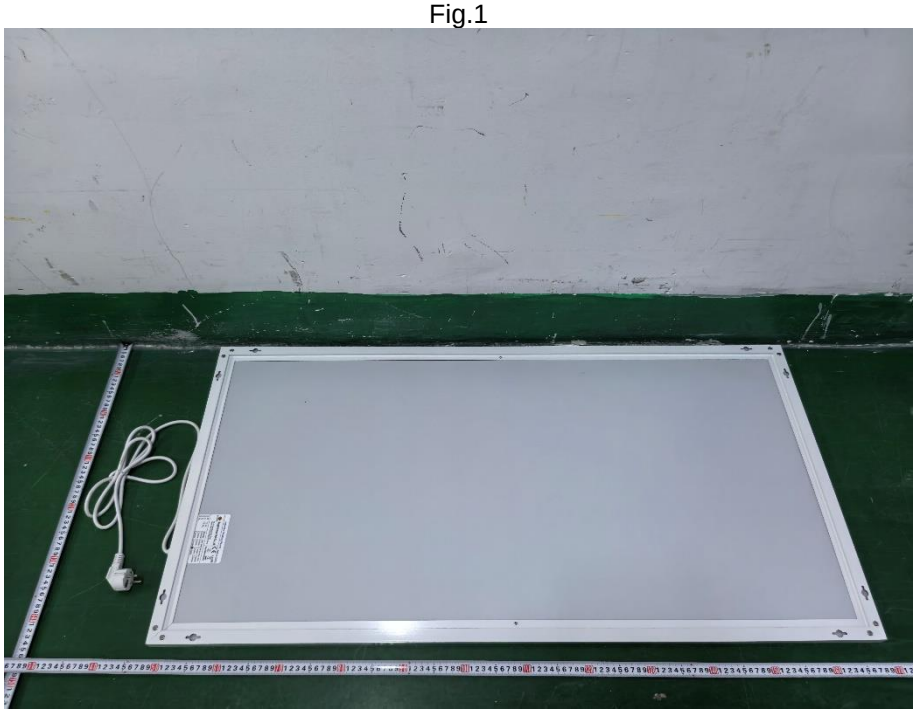

Fig.2

Fig.3

Fig.4

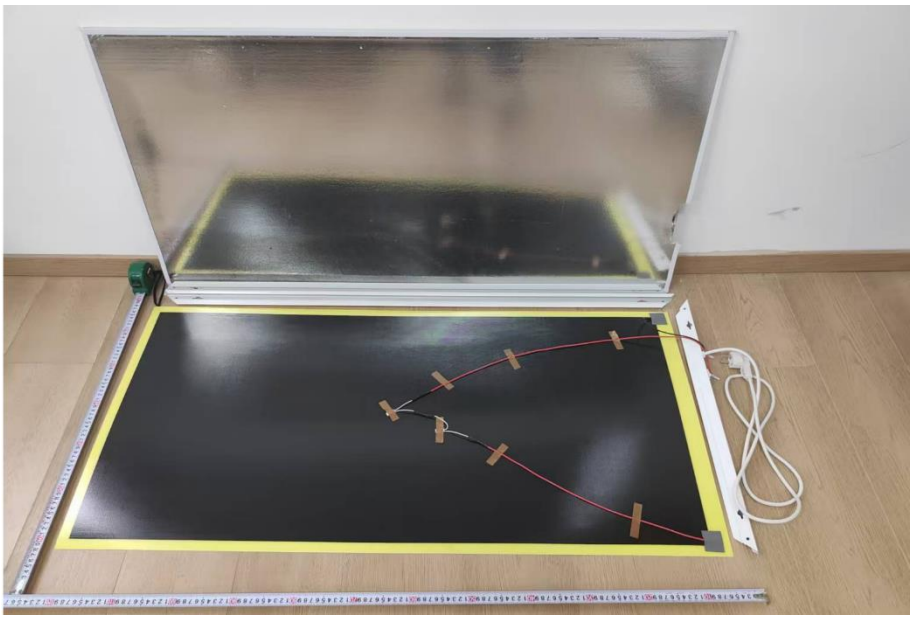

Fig.5

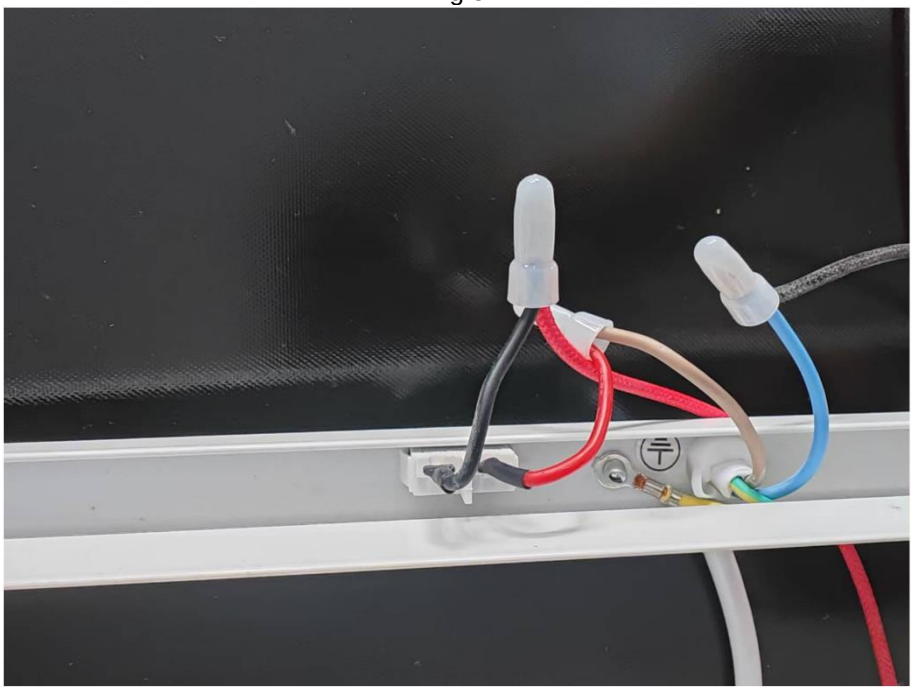

Fig.6

***** End of Report *****