



Dongguan Bai lida Optoelectronics Technology Co. Ltd.

# TEST REPORT

Prepared For:	Dongguan Bai lida Optoelectronics Technology Co. Ltd. No.10 Huan Cun Bei Road,Baihao precinct,Houjie Town,Dongguan,Guangdong,523957,China.
Product Name:	Line lamp
Model :	BLD-LS7590-4FT
Prepared By :	Shenzhen BST Technology Co., Ltd. Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District,Shenzhen,Guangdong,China
Test Date:	Jan. 28, - Oct. 10, 2015
Date of Report :	Oct. 10, 2015
Report No.:	BSTDG1509641631SR-2

**TEST REPORT****COMMISSION REGULATION (EU) No 1194/2012 of 12 December 2012  
implementing Directive 2009/125/EC of the European Parliament and of the Council  
regard to ecodesign requirements for directional lamps, light emitting diode  
lamps and related equipment**

<b>Testing laboratory</b> .....	Shenzhen BST Technology Co., Ltd.
<b>Address</b> .....	Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China
<b>Testing location</b> .....	Shenzhen BST Technology Co., Ltd.
<b>Applicant</b> .....	Dongguan Bai lida Optoelectronics Technology Co. Ltd.
<b>Address</b> .....	No.10 Huan Cun Bei Road, Baihao precinct, Houjie Town, Dongguan, Guangdong, 523957, China.
<b>Test Result</b> .....	COMMISSION REGULATION (EC) No 1194/2012(EC) No 859/2009
<b>Test Procedure</b> .....	Erp IM test
<b>Stage</b> .....	<input checked="" type="checkbox"/> stage 1 <input checked="" type="checkbox"/> stage 2 <input checked="" type="checkbox"/> stage 3
<b>Non-standard test method</b> .....	None
<b>Type of test object</b> .....	Line lamp
<b>Trademark</b> .....	N.A
<b>Model/type reference</b> .....	BLD-LS7590-4FT
<b>Rating</b> .....	100-277V~, 12-160W, 50/60Hz
<b>Manufacturer</b> .....	Dongguan Bai lida Optoelectronics Technology Co. Ltd.
<b>Address</b> .....	No.10 Huan Cun Bei Road, Baihao precinct, Houjie Town, Dongguan, Guangdong, 523957, China.
<b>Test item particulars</b> .....	:
<b>Lamp cap</b> .....	: N/A
<b>Lamp type</b> .....	: CFL / <u>LED</u> / Mains-voltage filament lamps/ other filament lamps/ High-intensity discharge lamps/ other lamps:
<b>Bulb type</b> .....	: <u>Directional</u>



**Possible test case verdicts :**

test case does not apply to the test object ..... : N(.A.)

test object does meet the requirement ..... : P(ass)

test object does not meet the requirement ..... : F(ail)

**General remarks:**

The test results presented in this report relate only to the object tested.

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"(see appended table)" refers to a table appended to the report.

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Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 12 months. This document cannot be reproduced except in full, without prior approval of the company.

Throughout this report a comma (point) is used as the decimal separator.

This report includes the following attachments:

**General product information:**

Line lamp , BLD-LS7590-4FT



Name and address of the testing laboratory : Shenzhen BST Technology Co.,Ltd.  
Building No.23-24, Ziheng Industrial Park,  
Guankouer Road, Nantou,Nanshan District,  
Shenzhen,Guangdong,China

Test by : Wenwei Oct. 10, 2015  
Signature Date

Technician  
Title

Review by : Apple Li Oct. 10, 2015  
Signature Date

Project Engineer  
Title

Approved by : [Signature] Oct. 10, 2015  
Signature Date

Christina Deng/ Manager  
Name and Title



**Summary of testing:**

The sample(s) tested complies with the requirements of COMMISSION REGULATION (EU) No 1194/2012.

These tests were conducted by test lab that fulfils the requirements of standard ISO/IEC 17025.

When determining the test conclusion, the Measurement Uncertainty of test has been considered.

The lamp was tested with the convertor SVC-5KVA.

**Artwork of Marking Label**

Line lamp

Model : BLD-LS7590-4FT

Rated : 100-277V~,12-160W,50/60Hz

Dongguan Bai lida Optoelectronics Technology Co. Ltd.



Clasue		Result-Remark	Verdict
<b>1194/2012/EU</b>			
<b>ANNEX I</b>	<b>Product information requirements for special purpose products</b>		
1.	If the chromaticity coordinates of a lamp always fall within the following range: — $x < 0,270$ or $x > 0,530$ — $y < 2,3172x^2 + 2,3653x - 0,2199$ or $y > 2,3172x^2 + 2,3653x - 0,1595$		N/A
	The chromaticity coordinates shall be stated in the technical documentation file, which shall indicate that these coordinates make them a special purpose product.		N/A
2.	For all special purpose products, the intended purpose shall be stated in all forms of product information, together with the warning that they are not intended for use in other applications.		N/A
	The technical documentation file shall list the technical parameters that make the product design specific for the stated intended purpose.		N/A
	If needed, the parameters shall be listed in such a way as to avoid disclosing commercially sensitive information linked to the manufacturer's intellectual property rights.		N/A
	If the product is placed on the market in a packaging containing to be visibly displayed to the end-user prior to purchase, the following information shall be clearly and prominently indicated on the packaging and in all other forms of product information:		N/A
	(a) the intended purpose; and		N/A
	(b) that it is not suitable for household room illumination.		N/A

<b>ANNEX III</b>	<b>Ecodesign requirements</b>		
1.1	<b>ENERGY EFFICIENCY REQUIREMENTS</b>		P
Table 1	Energy efficiency requirements for directional lamps:		P
	Lamps operating on external halogen lamp control gear: P rated x1,06		N/A
	Others not mention in table 1:Prated x 1		P
	Lamps operating on external LED lamp control gear: P rated x 1,10		N/A
	Fluorescent lamps of 16 mm diameter (T5 lamps) and 4-pin single capped fluorescent lamps operating on external fluor-escent lamp control gear: P rated x 1,10		N/A
	Other lamps operating on external fluorescent lamp control Gear: P rated $x(0,24\sqrt{\Phi use} + 0,0103\Phi use)/(0,15\sqrt{\Phi use} + 0,0097\Phi use)$		N/A



	Lamps operating on external high-intensity discharge lamp control gear: P rated x 1,10		N/A
	Lamps operating on external low pressure sodium lamp controlGear: P rated x 1,15		N/A
	Compact fluorescent lamps with colour rendering index $\geq$ 90: P rated x 0.85		N/A
	Lamps with anti-glare shield: P rated x0.8		N/A
Table 2	The maximum EEI of directional lamps		P
	The energy efficiency index (EEI) of the lamp is calculated as follows and rounded to two decimal places: $EEI = P_{cor} / P_{ref}$ , $P_{cor}$ is the rated power measured at nominal input voltage and corrected where appropriate in accordance with follow. The correction factors are cumulative where appropriate.		P
	For models with $\Phi_{use} < 1\,300$ lumen: $P_{ref} = 0,88\sqrt{\Phi_{use}} + 0,049\Phi_{use}$		P
	For models with $\Phi_{use} \geq 1\,300$ lumen: $P_{ref} = 0,07341\Phi_{use}$		N/A
	$EEI = P_{cor} / P_{ref}$ in stage 1;		P
	- Mains-voltage filament lamps, if $\Phi_{use} > 450lm$ : $\leq 1.75$		P
	-other filament lamps:		N/A
	if $\Phi_{use} \leq 450lm$ : $\leq 1.20$		N/A
	if $\Phi_{use} > 450lm$ : $\leq 0.95$		N/A
	Other lamps $\leq 0.5$	0.14	P
	$EEI = P_{cor} / P_{ref}$ in stage 2;		P
	- Mains-voltage filament lamps $\leq 1.75$		N/A
	-other filament lamps $\leq 0.95$		N/A
	Other lamps $\leq 0.5$	0.14	P
	$EEI = P_{cor} / P_{ref}$ in stage 3;		P
	- Mains-voltage filament lamps $\leq 0.95$		N/A
	-other filament lamps $\leq 0.95$		N/A
	Other lamps $\leq 0.2$	0.14	P
Stage 3	For mains-voltage filament lamps shall apply only if no later than 30 September 2015, evidence is produced by the Commission through a detailed market assessment and communicated to the Consultation Forum that there are mainsvoltage lamps on the market that are:		N/A
	-compliant with the maximum EEI requirement in stage 3;		N/A
	- affordable in terms of not entailing excessive costs for the majority of end-users;		N/A



	- broadly equivalent in terms of consumer-relevant functionality parameters to mains-voltage filament lamps available on the date of entry into force of this Regulation, including in terms of luminous fluxes spanning the full range of reference luminous fluxes listed in Table 6;		N/A
	- Compatible with equipment designed for installation between the mains and filament lamps available on the date of entry into force of this Regulation according to state-of-the-art requirements for compatibility.		N/A
1.2	Energy efficiency requirements for lamp control gear		N/A
Stage 2	The no-load power of a lamp control gear intended for use between the mains and the switch for turning the lamp load on/off shall not exceed 1,0 W.....:		N/A
Stage 2	For lamp control gear with output power (P) over 250 W, the no-load power limits shall be multiplied by P/250 W.....:		N/A
Stage 2	The efficiency of a halogen lamp control gear shall be at least 0,91 at 100 % load.....:		N/A
Stage 3	The no-load power of a lamp control gear intended for use between the mains and the switch for turning the lamp load on/off shall not exceed 0,50 W.....:		N/A
Stage 3	For lamp control gear with output power (P) over 250 W, the no-load power limits shall be multiplied by P/250 W.....:		N/A
Stage 3	The standby power of a lamp control gear shall not exceed 0,50 W.....:		N/A
2.	FUNCTIONALITY REQUIREMENTS		--
2.1	Functionality requirements for directional lamps other than LED lamps		P
2.1.1	Functionality requirements for directional compact fluorescent lamps		N/A
Table 3	Lamp survival factor at 1 000 h		N/A
	Stage 1 except where indicated otherwise: From 1 March 2014: $\geq 0,50$		N/A
	Stage 3: $\geq 0,70$		N/A
	Lumen maintenance		N/A
	Stage 1 except where indicated otherwise: At 2 000 h: $\geq 80 \%$		N/A
	Stage 3: At 2 000 h: $\geq 83 \%$ At 6 000 h: $\geq 70 \%$		N/A
	Number of switching cycles before failure		N/A





	Stage 1 except where indicated otherwise: ≥ half the lamp lifetime expressed in hours ≥ 10 000 if lamp starting time >0,3 s		N/A
	Stage 3: ≥ lamp lifetime expressed in hours ≥ 30 000 if lamp starting time >0,3 s		N/A
	Starting time		N/A
	Stage 1 except where indicated otherwise: < 2,0 s		N/A
	Stage 3: < 1,5 s if P < 10 W < 1,0 s if P ≥ 10 W		N/A
	Lamp warm-up time to 60 % Φ		N/A
	Stage 1 except where indicated otherwise: < 40 s or < 100 s for lamps containing mercury in amalgam form		N/A
	Stage 3: < 40 s or < 100 s for lamps containing mercury in amalgam form		N/A
	Premature failure rate		N/A
	Stage 1 except where indicated otherwise: ≤ 5,0 % at 500 h		N/A
	Stage 3: ≤ 5,0 % at 1 000 h		N/A
	Lamp power factor for lamps with integrated control gear		N/A
	Stage 1 except where indicated otherwise: ≥ 0,50 if P < 25 W ≥ 0,90 if P ≥ 25 W		N/A
	Stage 3: ≥ 0,55 if P < 25 W ≥ 0,90 if P ≥ 25 W		N/A
	Colour rendering (Ra)		N/A
	Stage 1 except where indicated otherwise: ≥ 80 ≥ 65 if the lamp is intended for outdoor or industrial applications according to point 3.1.3		N/A
	Stage 3: ≥ 80 ≥ 65 if the lamp is intended for outdoor or industrial applications according to point 3.1.3		N/A



	If the lamp cap is a standardised type also used with filament lamps, then as from stage 2, the lamp shall comply with state-of-the-art requirements for compatibility with equipment designed for installation between the mains and filament lamps.		N/A
2.1.2	Functionality requirements for other directional lamps (excluding LED lamps, compact fluorescent lamps and high-intensity discharge lamps)		N/A
2.1.2.1	Rated lamp lifetime at 50 % lamp survival		N/A
	Stage 1 ≥ 1 000 h (≥ 2 000 h in stage 2) ≥ 2 000 h for extra low voltage lamps not complying with the stage 3 filament lamp efficiency requirement in point 1.1		N/A
	Stage 3: ≥ 2 000 h ≥ 4 000 h for extra low voltage lamps		N/A
2.1.2.2	Lumen maintenance		N/A
	Stage 1 ≥ 80 % at 75 % of rated average lifetime		N/A
	Stage 3: ≥ 80 % at 75 % of rated average lifetime		N/A
2.1.2.3	Number of switching cycles		N/A
	Stage 1 ≥ four times the rated lamp life expressed in hours		N/A
	Stage 3: ≥ four times the rated lamp life expressed in hours		N/A
2.1.2.4	Starting time		N/A
	Stage 1: < 0,2 s		N/A
	Stage 3: < 0,2 s		N/A
2.1.2.5	Lamp warm-up time to 60 % Φ		N/A
	Stage 1 and 2: ≤ 1,0 s		N/A
	Stage 3: ≤ 1,0 s		N/A
2.1.2.6	Premature failure rate		N/A
	Stage 1 and 2: ≤ 5,0 % at 100 h		N/A
	Stage 3: ≤ 5,0 % at 200 h		N/A
2.1.2.7	Lamp power factor for lamps with integrated control gear		N/A
	Stage 1 and 2: Power > 25 W: ≥ 0,9 Power ≤ 25 W: ≥ 0,5		N/A



	Stage 3: Power > 25 W: $\geq 0,9$ Power $\leq 25$ W: $\geq 0,5$		N/A
2.2	Functionality requirements for non-directional and directional LED lamps Requirement as from stage 1, except where indicated otherwise		P
	Lamp survival factor at 6 000 h		P
	From 1 March 2014: $\geq 0,90$	1	P
	Lumen Maintenance at 6 000 h		P
	From 1 March 2014: $\geq 0,80$	0.92	P
	Number of switching cycles before failure		P
	$\geq 15$ 000 if rated lamp life $\geq 30$ 000 h otherwise: $\geq$ half the rated lamp life expressed in hours	15000	P
	Starting time		P
	< 0,5 s	0.10.	P
	Lamp warm-up time to 95 % $\Phi$		P
	< 2 s	0.5	P
	Premature failure rate		P
	$\leq 5,0$ % at 1 000 h	0	P
	Colour rendering (Ra)		P
	$\geq 80$ $\geq 65$ if the lamp is intended for outdoor or industrial applications in accordance with point 3.1.3	86.8	P
	Colour consistency		P
	Variation of chromaticity coordinates within a six-step MacAdam ellipse or less.		P
	Lamp power factor (PF) for lamps with integrated control gear		P
	P $\leq 2$ W: no requirement 2 W < P $\leq 5$ W: PF > 0,4 5 W < P $\leq 25$ W: PF > 0,5 P > 25 W: PF > 0,9	0.976	P
	If the lamp cap is a standardised type also used with filament lamps, then as from stage 2 the lamp shall comply with state-of-the-art requirements for compatibility with equipment designed for installation between the mains and filament lamps.		
2.3.	Functionality requirement for equipment designed for installation between the mains and the lamps		N/A
	As from stage 2, equipment designed for installation between the mains and the lamps shall comply with state-of-the-art requirements for compatibility with lamps whose energy efficiency index (calculated for both directional and non-directional lamps in accordance with the method set out in point 1.1) is at most:		N/A
	0,24 for non-directional lamps (assuming that $\Phi$ use = total rated luminous flux),		N/A



	0,40 for directional lamps.		N/A
	When a dimming control device is switched on at its lowest control setting for which the operated lamps consume power, the operated lamps shall emit at least 1 % of their luminous flux at full load.		N/A
	When a luminaire is placed on the market and intended to be marketed to the end-users, and lamps that the end-user can replace are included with the luminaire, these lamps shall be of one of the two highest energy classes, according to Commission Delegated Regulation (EU) No 874/2012, with which the luminaire is labelled to be compatible.		N/A
3.	PRODUCT INFORMATION REQUIREMENTS		P
3.1.	Product information requirements for directional lamps		P
	The following information shall be provided as from stage 1, except where otherwise stipulated.		P
	These information requirements do not apply to:		N/A
	— filament lamps not fulfilling the efficacy requirements of Stage 2,		N/A
	— LED modules when marketed as part of a luminaire from which they are not intended to be removed by the end-user.		N/A
	In all forms of product information, the term 'energy-saving lamp' or any similar product related promotional statement about lamp efficacy may be used only if the energy efficiency index of the lamp (calculated in accordance with the method set out in point 1.1 of this Annex) is 0,40 or below.		N/A
3.1.1	Information to be displayed on the lamp itself		P
	Lamps other than high-intensity discharge lamps, the value and unit ('lm', 'K' and '° ') of the nominal useful luminous flux, of the colour temperature and of the nominal beam angle shall be displayed in a legible font on the surface of the lamp.		P
3.1.2	Information to be visibly displayed to end-users, prior to their purchase, on the packaging and on free access websites		P
	The information in paragraphs (a) to (o) below shall be displayed on free access websites and in any other form the manufacturer deems appropriate.		P
	If the product is placed on the market in a packaging containing information to be visibly displayed to the end- users, prior to their purchase, the information shall also be clearly and prominently indicated on the packaging.		P
	The information does not need to use the exact wording on the list below. It may be displayed in the form of graphs, drawings or symbols rather than text.		P
	(a) Nominal useful luminous flux displayed in a font at least twice as large as any display of the nominal lamp power;		P
	(b) Nominal life time of the lamp in hours (not longer than the rated life time);		P



	(c) Colour temperature, as a value in Kelvins and also expressed graphically or in words;		P
	(d) Number of switching cycles before premature failure;		P
	(e) Warm-up time up to 60 % of the full light output (may be indicated as 'instant full light' if less than 1 second);		P
	(f) A warning if the lamp cannot be dimmed or can be dimmed only on specific dimmers; in the latter case a list of compatible dimmers shall be also provided on the manufacturer's website;		N/A
	(g) If designed for optimum use in non-standard conditions (such as ambient temperature $T_a \neq 25^\circ\text{C}$ or specific thermal management is necessary), information on those conditions;		N/A
	(h) Lamp dimensions in millimetres (length and largest diameter);		P
	(i) Nominal beam angle in degrees;		P
	(j) If the lamp's beam angle is $\geq 90^\circ$ and its useful luminous flux as defined in point 1.1 of this Annex is to be measured in a $120^\circ$ cone, a warning that the lamp is not suitable for accent lighting;		N/A
	(K) If the lamp cap is a standardised type also used with filament lamps, but the lamp's dimensions are different from the dimensions of the filament lamp(s) that the lamp is meant to replace, a drawing comparing the lamp's dimensions to the dimensions of the filament lamp(s) it replaces;		N/A
	(l) An indication that the lamp is of a type listed in the first column of Table 6 may be displayed only if the luminous flux of the lamp in a $90^\circ$ cone ( $\Phi 90^\circ$ ) is not lower than the reference luminous flux indicated in Table 6 for the smallest wattage among the lamps of the type concerned. The reference luminous flux shall be multiplied by the correction factor in Table 7. For LED lamps, it shall be in addition multiplied by the correction factor		N/A
	(m) An equivalence claim involving the power of a replaced lamp type may be displayed only if the lamp type is listed in Table 6 and if the luminous flux of the lamp in a $90^\circ$ cone ( $\Phi 90^\circ$ ) is not lower than the corresponding reference luminous flux in Table 6. The reference luminous flux shall be multiplied by the correction factor in Table 7. For LED lamps, it shall be in addition multiplied by the correction factor in Table 8. The intermediate values of both the luminous flux and the claimed equivalent lamp power (rounded to the nearest 1 W) shall be calculated by linear interpolation between the two adjacent values.		N/A
	If the lamp contains mercury:		N/A



	Lamp mercury content as X,X mg;		N/A
	Indication of which website to consult in case of accidental lamp breakage to find instructions on how to clean up the lamp debris.		N/A
3.1.3	Information to be made publicly available on free-access websites and in any other form the manufacturer deems appropriate. As a minimum, the following information shall be expressed at least as values.		P
3.1.3.1	The information specified in point 3.1.2;		P
3.1.3.2	Rated power (0,1 W precision);		P
3.1.3.3	Rated useful luminous flux;	7265.32lm	P
3.1.3.4	Rated lamp life time;	30000h	P
3.1.3.5	Lamp power factor;	0.976	P
3.1.3.6	Lumen maintenance factor at the end of the nominal life (except for filament lamps);	91.59%	P
3.1.3.7	Starting time (as X,X seconds);	< 0,1 s	P
3.1.3.8	Colour rendering;	86.8	P
3.1.3.9	Colour consistency (only for LEDs);	5472	N/A
3.1.3.10	Rated peak intensity in candela (cd);		P
3.1.3.11	Rated beam angle;		P
3.1.3.12	If intended for use in outdoor or industrial applications, an indication to this effect;		N/A
3.1.3.14	Spectral power distribution in the range 180-800 nm;		P
3.1.3.15	Instructions on how to clean up the lamp debris in case of accidental lamp breakage;		N/A
3.1.3.16	Recommendations on how to dispose of the lamp at the end of its life for recycling in line with Directive 2012/19/EU of the European Parliament and of the Council ( 1 ).		N/A
3.1.4.	Color difference		N/A
3.2	Additional product information requirements for LED lamps replacing fluorescent lamps without integrated ballast		N/A
	Claims that an LED lamp replaces a fluorescent lamp without integrated ballast of a particular wattage may be made only if:		N/A
3.2.1	the luminous intensity in any direction around the tube axis does not deviate by more than 25 % from the average luminous intensity around the tube,		N/A
3.2.2	the luminous flux of the LED lamp is not lower than the luminous flux of the fluorescent lamp of the claimed wattage. The luminous flux of the fluorescent lamp shall be obtained by multiplying the claimed wattage with the minimum luminous efficacy value corresponding to the fluorescent lamp in Commission Regulation (EC) No 245/2009 ( 1 )		N/A



3.2.3	the wattage of the LED lamp is not higher than the wattage of the fluorescent lamp it is claimed to replace.		N/A
3.3.	Product information requirements for equipment other than luminaires, designed for installation between the mains and the lamps		N/A
3.4	Product information requirements for lamp control gears As from stage 2, the following information shall be published on publicly available free access websites and in other forms the manufacturer deems appropriate:		N/A
3.4.1	Indication that the product is intended to be used as a lamp control gear,		N/A
3.4.2	If applicable, the information that the product may be operated in no-load mode.		N/A

ANNEX 1	Functionality requirements for other directional lamps (excluding LED lamps, compact fluorescent lamps and high-intensity discharge lamps)			
Type reference	BLD-LS7590-4FT			
Functionality parameter	<input checked="" type="checkbox"/> Limit for Stage 1 and <input checked="" type="checkbox"/> 2	Limit for Stage 3	Average results	Verdict
Rated lamp lifetime	<input checked="" type="checkbox"/> $\geq 1\,000$ h <input checked="" type="checkbox"/> $\geq 2\,000$ h in stage 2 <input type="checkbox"/> $\geq 2\,000$ h for extra low voltage lamps not complying with the stage 3 filament lamp efficiency requirement in point 1.1	$\geq 2\,000$ h $\geq 4\,000$ h for extra low voltage lamps	>2000 (>50% of lamps are survived till 2000 h)	P
Lumen maintenance	$\geq 80\%$ at 75 % of rated average lifetime	$\geq 80\%$ at 75 % of rated average lifetime	91.59%	P
Number of switching cycles	$\geq$ four times the rated lamp life expressed in hours	$\geq$ four times the rated lamp life expressed in hours	>8000	P
Starting time	< 0,2 s	< 0,2 s	< 0.2s	P
Lamp warm-up Time to 60 % $\Phi$	$\leq 1,0$ s	$\leq 1,0$ s	$\leq 1,0$ s	P
Premature failure rate	$\leq 5,0\%$ at 100 h	$\leq 5,0\%$ at 200 h	0	P
Lamp power factor	Power > 25 W: $\geq 0,9$ Power $\leq 25$ W: $\geq 0,5$	Power > 25 W: $\geq 0,9$ Power $\leq 25$ W: $\geq 0,5$	0.976	P



Clasue				Result-Remark	Verdict
<b>Attachment 1: Commission Delegated Regulation (EU) No 874/2012</b>					
<b>ANNEX VI</b>	<b>Energy efficiency class</b>				--
	<b>The energy efficiency class of a lamp shall be determined as follows:</b>				--
	P <sub>cor</sub> is the rated power (P <sub>rated</sub> ) for models without external control gear:				P
	P <sub>cor</sub> is the the rated power (P <sub>rated</sub> ) corrected in accordance with Table 2 for models with external control gear				N/A
	Lamps operating on external halogen lamp control gear		P <sub>cor</sub> = P <sub>rated</sub> x 1,06 =		N/A
	Lamps operating on external LED lamp control gear		P <sub>cor</sub> = P <sub>rated</sub> x 1,10 =		N/A
	Fluorescent lamps of 16 mm diameter (T5 lamps) and 4-pin single capped fluorescent lamps operating on external fluorescent lamp control gear		P <sub>cor</sub> = P <sub>rated</sub> x 1,10 = □		N/A
	Other lamps operating on external fluorescent lamp control gear		$P_{cor} = P_{rated} \times \frac{0,24\sqrt{\Phi_{use}} + 0,0103\Phi_{use}}{0,15\sqrt{\Phi_{use}} + 0,0097\Phi_{use}}$ = □		N/A
	Lamps operating on external high-intensity discharge lamp control gear		P <sub>cor</sub> = P <sub>rated</sub> x 1,10 =		N/A
	Compact fluorescent lamps with colour rendering index≥90: P rated x 0.85		P <sub>cor</sub> = P <sub>rated</sub> x 0.85 =		N/A
	Lamps with anti-glare shield: P rated x 0.8		P <sub>cor</sub> = P <sub>rated</sub> x 0.8 =		N/A
	Lamps operating on external low pressure sodium lamp control gear		P <sub>cor</sub> = P <sub>rated</sub> x 1,15 =		N/A
	Others not mention in table 1:P <sub>rated</sub> x 1		P <sub>cor</sub> = P <sub>rated</sub> x 1 =74.2W		P
	For models with Φ <sub>use</sub> < 1 300 lumen:				N/A
	P <sub>ref</sub> = 0,88√Φ <sub>use</sub> + 0,049 use:				N/A
	For models with Φ <sub>use</sub> ≥1 300 lumen:			74.2W	P
	P <sub>ref</sub> = 0,07341Φ <sub>use</sub> :				P
	EEI = P <sub>cor</sub> / P <sub>ref</sub> :			0.14	P
	Energy efficiency class	EEI for non Directional lamps	EEI for directional lamps	Directional lamp	P
	A++	EEI ≤ 0,11	EEI ≤ 0,13		N/A
	A+	0,11 < EEI ≤ 0,17	0,13 < EEI ≤ 0,18	A+	P
	A	0,17 < EEI ≤ 0,24	0,18 < EEI ≤ 0,40		N/A
	B	0,24 < EEI ≤ 0,60	0,40 < EEI ≤ 0,95		N/A
	C	0,60 < EEI ≤ 0,80	0,95 < EEI ≤ 1,20		N/A
	D	0,80 < EEI ≤ 0,95	1,20 < EEI ≤ 1,75		N/A
	E	EEI > 0,95	EEI > 1,75		N/A





**ANNEX A:**  
Photo-documentation



**Photo 1 General Appearance of the EUT**



**Photo 2 General Appearance of the EUT**

