





The Project is funded by the European Union

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GRANT AGREEMENT 649894 – EEPLIANT Call for Tender for Test Laboratories Product Activity: WP4 Joint Testing of LED lamps

1. Background

PROSAFE is an international non-governmental organisation established in 1991 by market surveillance officers from various countries throughout Europe. Its main aim is to contribute to the safety of products and services by promoting best practices in market surveillance. Since 2006, PROSAFE has established itself as the organising and coordinating body for Joint Market Surveillance Actions in Europe. PROSAFE's official name is "Stichting PROSAFE". It is a foundation under Dutch law.

PROSAFE's main task is to coordinate Joint Actions. Each Joint Action comprises a number of productspecific activities that target specific product groups, and a number of activities aiming at developing methods and best practices.

In 2015, PROSAFE became the coordinator for the Project Energy Efficiency Complaint Products 2014 (in the remaining part of this document called EEPLIANT Project). The EEPLIANT Project started in March 2015 and will end in June 2017. One of the product-specific activities in the EEPLIANT Project, the Work Package 4 (in the remaining part of this document called WP4) will address Joint Testing of LED lamps.

The EEPLIANT Project identifies a number of roles and responsibilities:

- PROSAFE's Executive Director is responsible for the coordination of general and financial management of the EEPLIANT activity;
- A Project Leader has been appointed for the EEPLIANT activity. He is responsible for the performance, reporting and coordination of the Work Packages Leaders;
- A Member State representative has been selected as Work Package Leader responsible for carrying out the WP4 Activity;
- Mr. Fabio Gargantini, has been selected as Activity Facilitator responsible for the daily coordination of the WP4 Activity
- The financial and project administration is handled by the PROSAFE Office.

2. The scope of the tender - Types of products to be tested, testing parameters and relevant standards

An important part of the EEPLIANT Project is the testing of LED lamps. The testing activity covers mains voltage and low voltage directional and non-directional lamp types predominantly used in the domestic sector as shown in Table 1.

The purpose of the testing is to support market surveillance for the EU regulations 874/2012/EU (COMMISSION DELEGATED REGULATION supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of electrical lamps and luminaires) the 1194/2012/EU, (COMMISSION REGULATION implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to eco-design requirements for directional lamps, light emitting diode lamps and related equipment) and the 244/2009/EU (Commission regulation implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to eco-design requirements for directional lamps, light emitting Directive 2005/32/EC of the European Parliament and of the Council with regard to eco-design requirements for non-directional household lamps).

The testing must be based on the requirements defined in these specific regulations and the relevant test standards defined in Commission Communication 2014/C 22/02. However only the parameters listed in tables 2 and 3 are to be tested. The Commission Communication covering the list of relevant testing standards to be applied is attached to this tender document.

Lamp definition	Examples
E14:230V	
E27:230V	
GU10	CE E
GU5.3	
G9	

Table 1 - Types of LEDs covered by the tests

Table 2 - Parameters to be tested and relevant standards to be considered for the testing according to EC communication document 2014/C 22/02

Measured parameter	Reference	Note	Price per each model(batch) (VAT included)
EEI	CIE 84 for general conditions of luminous flux measurement; L2(AP)005 for cone luminous flux; EN 62612, 9.3 for efficacy; EN 62612, 9.1 and Annex A for luminous flux, EN 62612, 8.1 and Annex A for power.	The average EEI value shall be calculated from the arithmetic mean of each product's individual EEI.	
Rated lifetime	EN 62612 provides procedures for 6.000 h testing time.		
Lamp survival factor	EN 62612, 11.2	The compliance criteria of the regulations shall be applied.	
Lumen maintenance	EN 62612, 11.2	The compliance criteria of the regulations shall be applied.	



Number of switching cycles	EN 62612, 11.3.3		
Premature failure rate	EN 62612,11.2	An additional read point at 1 000 h and the compliance criteria according to the regulations shall be applied.	
Lamp power factor (only for lamps with integrated control gear)	EN 61000-3-2		
Colour consistency	EN 62612, 10.1		
ССТ	prEN 13032-4		
CRI	prEN 13032-4		
Peak intensity	EN 62612, 9.2		
Luminance	CIE 18.2		
Beam angle	EN 62612, 9.2		

Table 3 - Tests required for full testing for non-directional LEDs:

Measured parameter	Reference	Note	Price per each model(batch) (VAT included)
Lamp efficacy	EN 62612, 9.3 efficacies. To be corrected according to IM 244 with correction factor.	The average efficacy value shall be calculated from the arithmetic mean of each product's individual efficacy.	
Rated lifetime, lamp lifetime	Reliable, accurate and reproducible measurement procedures shall be used. For LED lamps, EN 62612 provides procedures for 6.000 h testing time.		
Lamp survival factor	EN 62612, 11.2	The compliance criteria of the regulations shall be applied.	
Lumen maintenance, lamp lumen maintenance factor	EN 62612, 11.2	The compliance criteria of the regulations shall be applied.	
Number of switching cycles	EN 62612, 11.3.3		
Premature failure rate	EN 62612, 11.2	An additional read point at 1.000 h and the compliance criteria according to the regulations shall be applied.	
Lamp power factor	EN 61000-3-2		
Chromaticity coordinates	prEN 13032-4		
сст	prEN 13032-4		
CRI	prEN 13032-4	The RA value shall be calculated	
Luminance	CIE 18.2		



For the tests of LED Lamps with a rated voltage up to 120 V, reference can also be made to prEN 62663-2.

3. Specification of further tender requirements

It is emphasised that PROSAFE may decide to assign the testing to more than one laboratory.

The contract will comprise the following services:

- Testing of a maximum number of 100 LED lamp models. The precise number of models finally depends on the total costs for testing offered by the labs and by the available budget and will be specified by the work package leader and the facilitator before the testing will be started.
- According to the EU regulations 20 samples for each LED model shall be tested.
- Laboratories may be asked to participate in one or more project meetings, for instance to explain test methods or test results to the consortium, or respectively to host a meeting for the representatives of the project consortium.
- Data resulting from testing must be provided in standardised digital electronic format and must be delivered with a full testing report from the laboratory. One Test Reports for each of the individual lamp models shall be provided, including all results for the individual batches for the parameters tested according to tables 2 and 3 above and must indicate the measured values for each property (not only "failed/passed") according to regulation requirement specifications)
- An overview test report and table with the findings for all received models(batches) shall be provided.
- The testing is planned to start in January 2015 and must end at latest in September 2016.
- Within 60 working days after the delivery of all products to be tested and the starting of the tests, a preliminary Test Report must be delivered, including all results of the required tests except for the life time related parameters to be tested at 6000h (lumen maintenance, etc.). The final complete Test Report shall be delivered when the 6.000 h test will be finished.

Furthermore the following general requirements apply:

Management requirements:

- It is the responsibility of the laboratory to carry out its testing and calibration activities in such a way as to meet the respective requirements of the tender specifications.
- The laboratory shall have managerial and technical personnel who have the authority and resources needed to carry out their duties.
- The laboratory shall provide adequate supervision of testing and calibration staff by persons familiar with methods and procedures, purpose of each test and/or calibration, and with the assessment of the test or calibration results.
- The laboratory shall establish and maintain procedures for the review of requests. The policies and procedures for these reviews leading to a contract for testing and/or calibration shall ensure that the laboratory has the capability and resources to meet the requirements.
- Any differences between the request and the contract shall be resolved before any work commences.
- The Activity Facilitator shall be informed immediately of any deviation from the contract.
- The laboratory shall establish and maintain procedures for identification, collection, indexing, access, filing, storage, maintenance and disposal of quality and technical records.
- The laboratory shall have procedures to protect and backup records stored electronically and to prevent unauthorized access to or amendment of these records.
- The laboratory shall store samples in a secure way and be able to demonstrate that there has been a continuous chain of custody.



Requirements regarding the technical skills:

- The laboratory management shall ensure the competence of all who operate specific equipment, perform test and/or calibrations, evaluate results, and sign test reports and certificates. When using staff undergoing training, appropriate supervision shall be provided. Personnel performing specific tasks shall be qualified based on appropriate education, training, experience and/or demonstrated skills, as required.
- Laboratory facilities for testing and/or calibration, including but not limited to energy sources, lighting and environmental conditions, shall be such as to facilitate correct performance of the tests and/or calibrations.
- All equipment used for tests and/or calibrations, including equipment for subsidiary measurements having a significant effect on the accuracy or validity of the result of the test, calibration or sampling, shall be calibrated before being put into service.
- The laboratory shall have due experience in the field of testing of products.
- The laboratory shall have experience in performing tests related to LED lamps according to the requirements mentioned in this call for tenders and in interpreting test results and classification issues.

Requirement regarding subcontracting:

• PROSAFE does not accept that the selected laboratory(ies) further subcontracts the testing services. If the need to subcontract becomes apparent only after the work has been commissioned, the laboratory must ask for PROSAFE's Executive Director's permission before such a decision is adopted.

Tender evaluation criteria and selection process 3.1 Selection process

The selection will be based on the following criteria:

- The tenderer's ability to carry out the specific tests.
- The tenderer's experience with testing of LEDs (concrete description of experience and references from previous LED testing projects).
- The tenderer's formal qualifications (e.g. accreditation, participation in RRTs, capability of controlling uncertainties of measurements).
- Price including VAT.
- Delivery time.
- Terms of delivery.
- Activity.
- PROSAFE's general impression of the tenderer's ability to undertake the job.

The selection will follow a 2-stage process. First, one or more laboratories will be shortlisted based on the received tenders. Second, a meeting may be arranged between representatives from the EEPLIANT WP4 Activity and representatives from the shortlisted laboratory(ies) in their premises to allow a more thorough discussion of the assignment.

The tenderer is invited to provide additional information to ease PROSAFE's evaluation of the services being offered, the prices and other aspects related to the selection criteria as mentioned above.

3.2 Evaluation criteria

The following evaluation criteria and scoring system will be applied for the selection of the laboratory(ies).

Criteria for laboratories participating to tender for tests on LEDs

Mandatory Criteria



Accreditation according to ISO/EN 17025 for Standards concerning tests on LED lamps	If not accredited ISO/EN 17025 for Standards concerning tests on LED lamps, the lab will not be considered
Experience with lamp LED testing	At least 2 years of experience with LED testing
Waiting time between contract signing and start of tests	If testing starts later than January 2016, lab cannot be considered
Minimum lab capacity	The minimum available lab capacity must be 25 batches (20 lamps per batch). If capacity is below this level, lab cannot be considered
Description of technical equipment for testing: Type of equipment and accuracy for the required tests	If no information on test equipment and accuracy is provided, lab cannot be considered
Description of staff in charge of the testing	If no information on responsible staff is provided, lab cannot be considered

If the above criteria are not met, the lab will not be considered

Scoring Criteria		
Criteria	Weighting Factor	
Accreditation EN ISO/EN 17025 for EN 62612	max 25 points	
Experience with LED lamp testing: References from testing projects and number of models of LED lamps tested in the last three years. Participation in RRTs or Proficiency tests for tests on performances of LED lamps. Experience with the relevant testing standards indicated in this Call for Tenders.	max 35 points	
Lab Capacity: Capability of testing from a minimum of 25 batches to a maximum of 100 batches (each batch is composed by 20 samples) at the same time	max 10 points	
Price (Inclusive of VAT)	max 30 points	
Total	Max 100 points	

Experience with LED lamp testing

Criterion	Score
References from clients or brands for which testing projects according to the relevant standard EN 62612 have been carried out	Max 10 points
Number of models of LED lamps tested according to EN 62612 in the last three years	Max 15 points
Participation in RRTs or Proficiency tests for tests on performances of LED lamps	Max 10 points
Total	Max 35 points

The tenderer is additionally requested to confirm:

- Full independence from manufacturers, importers or other economic operators in the market for LED lamps and LED luminaires.
- Excellent active and passive knowledge of the English language. Preferably good knowledge of other official European languages.



3.3 Quotation requirements

The tenderer is requested to:

- 1) Quote prices for the services indicated in Tables 2 and 3 by filling-in the relevant column. The quote must be per each model(batch) to be tested.
- 2) Indicate how many models(batches) they can test at the same time, considering that the minimum testing capability required by this call for tenders is 25 models(batches).

The tenderer must quote all prices including VAT. PROSAFE is not able to recover VAT and does not accept the reverse charge method.

The tenderer must specify the concrete location of the lab where the tests are executed. For practical reasons, PROSAFE will only in exceptional cases engage with laboratories where the testing is going to take place outside the EU/EEA countries.

The tenderer must describe his qualifications and experience in line with the requirements mentioned in Articles 2 and 3.

4. Deadline

Quotations shall be sent to the offices of PROSAFE Office in hardcopy (Avenue des Arts/Kunstlaan 41, B-1040 Brussels, Belgium) and via email to <u>info@prosafe.org</u>.

The email shall be copied to the Activity Facilitator, Fabio Gargantini (fabio.gargantini@prosafe.org).

Quotations shall be received at PROSAFE no later than 14th December 2015, 12:00 (Time Zone: GMT +1 hour). Quotations received after the deadline are rejected.

5. Further information - Contacts, Delivery of samples, Delivery of Results

5.1 Delivery of lamp samples

The samples will be provided by Market Surveillance Authorities in the following EU Member States: AT, BE, BG, DK, DE, LT, LT, MT, NL, PL, SI, SE. The Member States will provide 20 items of each lamp model for the examination and testing and additional 2 spare lamps, thus 22 lamps in total. Samples will be sent to the laboratory directly from the Member States. They will be accompanied by a list that identifies each sample, the reference to the project and with the reference of the person to be contacted for any question concerning the relevant models that Member States have sent.

5.2 Delivery of testing results

The Test Reports have to be sent to each Member States which delivered the models to be tested, for the models they submitted and in copy, by email, to the WP4 Facilitator, Mr. Fabio Gargantini.

5.3 Central contact

Further information regarding the task and the selection procedure can be obtained from the Activity Facilitator at the address:

PROSAFE Office Avenue des Arts/Kunstlaan 41, 2nd floor B-1040 Brussels Belgium Email: <u>info@prosafe.org</u> - Phone: +32 2 8080 996

Fabio GARGANTINI; Email: <u>fabio.gargantini@prosafe.org</u> - Phone: +39 348 6090854 With best regards,

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Nicolaas Olie Executive Director



Call for tender for laboratory testing, EEPLIANT WP4 LEDs

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PROSAFE Office, Avenue des Arts/Kunstlaan 41, B-1040 Brussels, Belgium Tel:+32 2 8080 996; E-mail: info@prosafe.org







Annex

Commission communication in the framework of the implementation of:

Commission Regulation (EC) No 244/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for nondirectional household lamps, amended by Commission Regulation (EC) No 859/2009 of 18 September 2009 as regards the ecodesign requirements on ultraviolet radiation of nondirectional household lamps

and

Commission Delegated Regulation (EU) No 874/2012 of 12 July 2012 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of electrical lamps and luminaires

and

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

