



**MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA**

DECREE OF THE MINISTER OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

NUMBER: 135.K/EK.07/DJE/2022

ABOUT
MINIMUM ENERGY PERFORMANCE STANDARD AND SIGN LABELS
SAVE ENERGY FOR ENERGY USING EQUIPMENT
LIGHTS – *EMITTING DIODES (LED)*

MINISTER OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF
INDONESIA,

- Considering : a. that in order to implement the provisions of Article 3 paragraph (4), Article 4 paragraph (6), Article 5 paragraph (3), Article 8, Article 18 paragraph (2), and Article 22 paragraph (2) Regulation of the Minister of Energy and Mineral Resources Number 14 of 2021 concerning the Application of Minimum Energy Performance Standards for Energy Utilizing Equipment, it is necessary to stipulate the types of energy utilizing equipment ; energy saving rate value, shape, and specification of the Energy Saving Sign Label; Energy Saving Certification Type; performance testing requirements and procedures; exemption from energy saving certification obligations; and tolerance for non-conformance of the results of the picking test for energy-consuming equipment LED lights ;
- b. that based on the considerations as referred to in letter a, it is necessary to stipulate a Decree of the Minister of Energy and Mineral Resources concerning Minimum Energy Performance Standards and Energy Saving Sign Labels for Energy Utilizing Equipment for LED Lamps ;
- Remember : 1. Law Number 30 of 2007 concerning Energy (State Gazette of the Republic of Indonesia of 2007 Number 96, Supplement to the State Gazette of the Republic of Indonesia Number 4796);
2. Law Number 20 of 2014 concerning Standardization and Conformity Assessment (State Gazette of the Republic of

- Indonesia of 2014 Number 216, Supplement to the State Gazette of the Republic of Indonesia Number 5584);
3. Government Regulation Number 70 of 2009 concerning Energy Conservation (State Gazette of the Republic of Indonesia of 2009 Number 171, Supplement to the State Gazette of the Republic of Indonesia Number 5083);
 4. Government Regulation Number 34 of 2018 concerning the Standardization System and National Conformity Assessment (State Gazette of the Republic of Indonesia of 2018 Number 110, Supplement to the State Gazette of the Republic of Indonesia Number 6225);
 5. Regulation President Number 97 of 2021 concerning the Ministry of Energy and Resources Mineral Resources (State Gazette of the Republic of Indonesia of 2021 Number 244);
 6. Decree of the President of the Republic of Indonesia Number 122/TPA of 2020 dated July 21, 2020;
 7. Regulation of the Minister of Energy and Mineral Resources Number 14 of 2021 concerning the Implementation of Minimum Energy Performance Standards for Energy Utilizing Equipment (State Gazette of the Republic of Indonesia of 2021 Number 716);
 8. Regulation of the Minister of Energy and Resources Mineral Resources Number 15 of 2021 concerning Organization and Work Procedures of the Ministry of Energy and Resources Mineral Resources (State Gazette of the Republic of Indonesia of 2021 Number 733).

DECIDE:

To stipulate : DECREE OF THE MINISTER OF ENERGY AND MINERAL RESOURCES CONCERNING MINIMUM ENERGY PERFORMANCE STANDARDS AND ENERGY SAVING MARK LABELS FOR ENERGY USING EQUIPMENT LIGHT – *EMITTING DIODE* (LED).

FIRST : Determine :

- a. standard performance minimum energy (MEPS/SKEM) and marking label for energy saving for equipment of bulb lamp *light – emitting diode* (LED) Self- ballasted as listed in Appendix I;
- b. standard performance minimum energy (MEPS) and marking label for energy saving for equipment of tube lamp *light – emitting diode* (LED) as listed in Appendix II; and

- c. standard performance minimum energy (MEPS) and marking label for energy saving for equipment of luminaires lamp *light-emitting diode* (LED) as listed in Appendix III ,
which is part no inseparable of this Ministerial Decree .

SECOND : Minimum energy performance standards (MEPS) and marking label for energy saving - consuming equipment lamp *light – emitting diode* (LED) as referred to in the FIRST Dictum, consists of above :

- a. lamp type *light – emitting diode* (LED) ;
- b. energy saving rate value, shape and specification of energy saving lamp marking label *light – emitting diode* (LED) ;
- c. requirements scheme certification standard performance minimum energy (MEPS) or label for lamp *light – emitting diode* (LED) ;
- d. lamp energy performance testing requirements and procedures *light – emitting diode* (LED) ;
- e. exemption from the mandatory energy saving certification of lamps *light – emitting diode* (LED) ;
- f. tolerance for non-conformance of the results of the surveillance test lamp *light – emitting diode* (LED) *light – emitting diode* (LED) ; and

THIRD : Domestic producers and importers of energy-consuming equipment lamp *light – emitting diode* (LED) required to apply minimum energy performance standards (MPES) as meant in SECOND dictum through the inclusion of minimum energy performance standards (MEPS) or marking label for energy saving for lamp *light-emitting diode* (LED) .

FOURTH : Domestic producers and importers energy use equipment lamp *light – emitting diode* (LED) must submit a report on the implementation of minimum energy performance standards (MEPS) and marking label for energy saving as meant in THIRD Dictum to the Director General of New, Renewable Energy and Energy Conservation periodically every 3 (three) months consisting of above :

- a. brand;
- b. type, or model;
- c. power ;
- d. lumens; and
- e. amount,

the manufactured and/or imported lamp *light – emitting diode* (LED).

- FIFTH : LED lights that have been produced and have circulating before this Ministerial Decree start valid, no required follow provision in this Ministerial Decree .
- SIXTH : Implementation of minimum energy performance standards (MEPS) through the inclusion of minimum energy performance standards (MEPS) or marking label for energy saving of lamp *light – emitting diode* (LED) as referred to in the THIRD Dictum, shall come into force after 12 (twelve) months since this Ministerial Decree is enacted.
- SEVENTH : This Ministerial Decree shall come into force on the date of stipulation.

Set in Jakarta
at the date of

MINISTER OF ENERGY AND MINERAL
RESOURCES
DIRECTOR GENERAL OF NEW, RENEWABLE
ENERGY AND ENERGY CONSERVATION,

DADAN KUSDIANA

Copy:

1. Minister of Energy and Mineral Resources
2. Secretary General of the Ministry of Energy and Mineral Resources
3. Director General of Customs and Excise, Ministry of Finance
4. Director General of Consumer Protection and Order of Commerce, Ministry of Trade
5. Director General of Metal, Machinery, Transportation Equipment, and Electronics Industry, Ministry of Industry
6. Head of the *National Single Window Institute* .

APPENDIX I
DECREE OF THE MINISTER OF ENERGY AND MINERAL
RESOURCES
REPUBLIC OF INDONESIA
NUMBER
ABOUT
MINIMUM ENERGY PERFORMANCE STANDARDS AND MARKING
LABEL FOR ENERGY SAVING OF ENERGY USING EQUIPMENT
LIGHTS – *EMITTING DIODES* (LED)

MINIMUM ENERGY PERFORMANCE STANDARDS AND MARKING LABEL FOR
ENERGY SAVING OF EQUIPMENT LIGHTS – *EMITTING DIODES* (LED)
SWABALAST

A. LED Light Type

1. General

LED light self-ballast is a tool or series ingredient or components that become one unity with lampstand type E40, E27, E26 which can be produce light who came from from *light emitting diode* (LED) used for lighting or function other.

2. HS Code

Self-ballasted LED light regulated in this Ministerial Decree are LED lights self-ballast with power until 60 Watts and voltage identifier > 50Va.b. up to 250Va.b which has HS code ex. 8539.52.10 or the changes.

3. Product Family

LED light self-ballast is a *product family* if:

- a. same brand
- b. have efficacy in level same star with power range:
 - 1) up to 10 watts,
 - 2) >10 – 25
 - 3) >25 – 60
- c. have the same shape ;
- d. same type of lampstand

B. Energy Saving Rate Values, Shapes and Specifications of Energy Saving Marking Labels for Self-ballast LED Lights .

1. Minimum Energy Performance Standard Values for LED Lights self-ballast namely the energy consumption rate of self- ballasted LED lamps of 80 lumens per watt.

2. The value of the marking label for energy saving for self-ballasted LED lamp is appropriate provision level economical energy with level star as following:

Table-1. Energy Saving Value and Star Level

Star Level	Energy Saving Value (lumen/watt)
☆	80 - 98
☆☆	> 98 - 108
☆☆☆	> 108 - 119
☆☆☆☆	>119 - 135
☆☆☆☆☆	> 135

3. Energy Saving Marking Label

- a. The affixing of the Energy Saving Marking Label originating from imports is carried out in the country of origin.
- b. Outstanding products after certificate expired and produced before certificate end still permanent allowed circulated.
- c. The Energy Saving Marking label is imprinted on the product and packaging by using an easy-to-read and proportional font size and printed or attached with a material that is not easily lost.
- d. The Energy Savings Marking label on the package can be imprinted using one contrasting color.
- e. The form and specifications of the Energy Saving Marking Label are as shown in the following figure:

1) Energy Saving Marking Label Shape

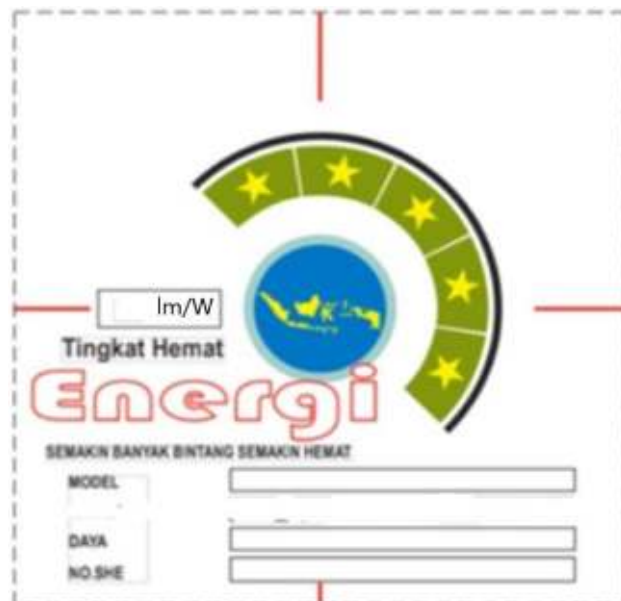


Image 1. LED Label Shape

2) Energy Saving Marking Label Specifications (in millimeters)

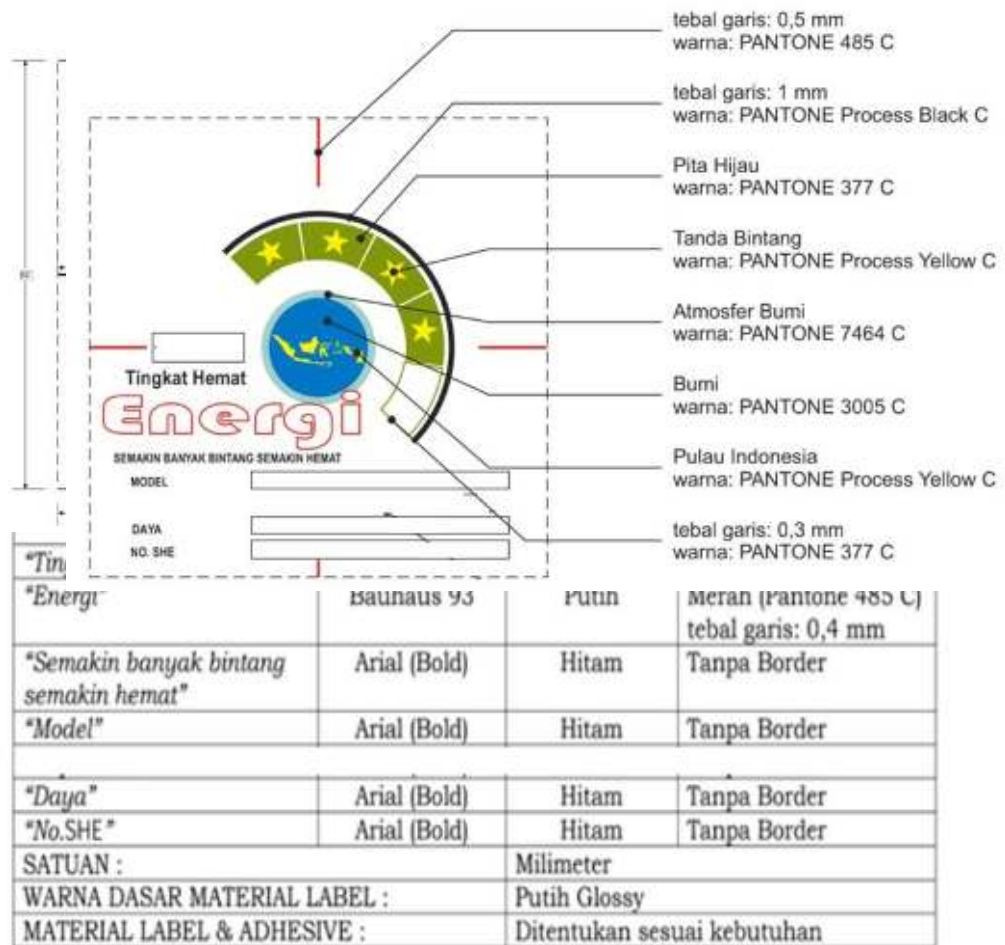


Figure-2. LED Label Description and Specifications

C. Type certification standard performance minimum energy (MEPS) or label for lamp *light-emitting diode* (LED)

MEPS certification or labels are implemented for *light-emitting diode* (LED) lighting products using a certification system consisting of selection, determination, review, certification and licensing decisions. In general, the procedure for applying for certification of minimum energy performance standards or labels for energy-consuming equipment for *light-emitting diode* (LED) lamps in accordance The certification process is in accordance with the image below:

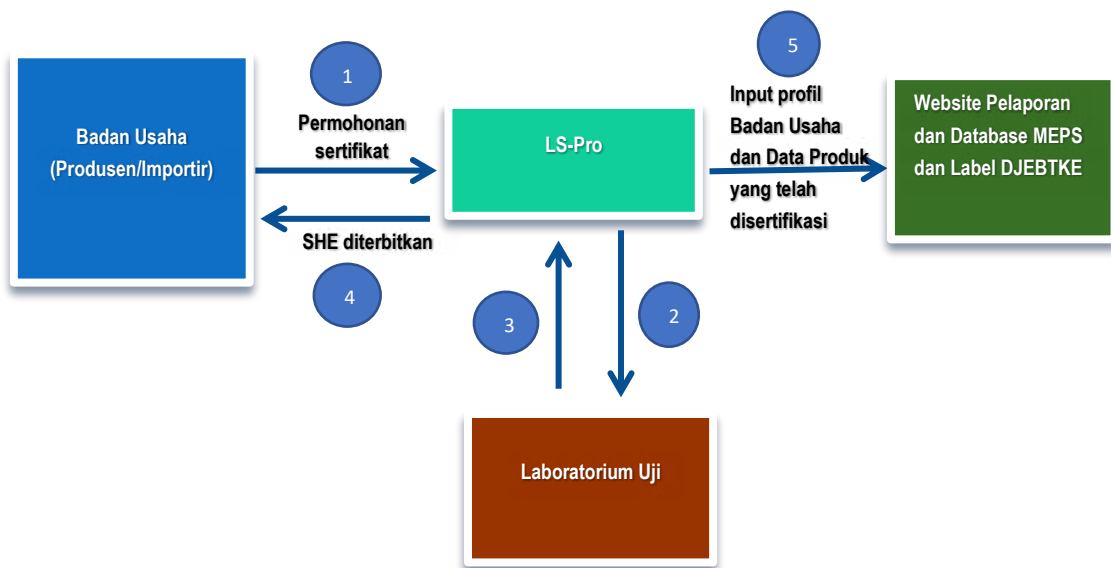


Diagram-1. Submission Flow MEPS and Label Certification
Lamp *Light – Emitting Diode* (LED)

1. Application requirements (selection) .

- a. MEPS certification can be submitted by the perpetrator business (producer/importer) to LSPro (Product Certification Agency) that has been accredited and appointed by the Minister of Energy and Mineral Resources.
- b. For foreign producers as referred to in number 1 letter a applying for MEPS certification, must appoint an official representative company which has a function as an importer or an importing company domiciled in Indonesia.
- c. The importer as referred to in letter b is proven by: licensing based on statutory regulations as well as responsible for everything that happens to the fulfillment provisions for the mandatory application of MEPS certification on lamps *light – emitting diode* (LED) import origin referred to circulating in Indonesia
- d. Business actors who apply for MEPS lamp certification *light – emitting diode* (LED), mandatory fulfill administrative requirements, by submitting a letter of application and showing original documents and submitting photos copy document:
 - 1) Number Permission Endeavor (NIB) or Industrial Business License (IUI) or Industrial Registration Certificate (TDI) for domestic producers;
 - 2) Importer Identification Number (API), Customs Identification Number (NIK) and Limited Importer (IT) for importers;
 - 3) Trademark Certificate or Mark Registration Certificate (Registration Certificate) Mark) issued by the Directorate General of Property Rights Intellectuals (HKI) of the Ministry of Law and Human Rights for LED lights and/or License Agreement from the brand owner for brands that are has been registered with the Directorate General of Property Rights Intellectuals (HKI) of the Ministry of Law and Human

Rights in accordance with the provisions Article 43 of Law Number 15 of 2001 concerning Marks;

- 4) Statement/declaration _ commitment for no circulate lamp *light – emitting diode* (LED) during the certification process and always guard suitability product with SNI requirements.
- 5) Statement letter implement ISO 9001 when no have proof certificate system management quality.
- 6) The application form determined by LSPro must containing at least information about:
 - a) Manufacturing company information
 - b) Information Importer (if appropriate)
 - c) Certified product technical information.
 - d) Marking information on product packaging and production code
- 7) Sample test of Energy Utilizing Equipment with appropriate amount letter D number 1 letter c.

2. Certification process requirements (determination) .

- a. Lamp *light – emitting diode* (LED) domestic and origin import product testing is mandatory by a laboratory of Examiners appointed by the Minister and in cooperation with LS Pro corresponds to the letter D.
- b. The test results of the light – emitting diode (LED) lamp as referred to in number 2 letter a, is stated in the Test Result Report (LHU) that meets the requirements.
- c. In issuing the MEPS certificate, LSPro cooperates with the Test Laboratory to conduct tests on samples from Domestic Producers or Importers.
- d. The number of samples is in accordance with the requirements in letter D.
- e. If there is a discrepancy between the test results and the requirements for passing the test in accordance with this SNI/Ministerial Decree, then LSPro will notify the applicant of the problem for root cause investigation and re-testing by the certification applicant.
- f. The re-test can be carried out at most 1 time within 6 months from the date of date application certification on cost applicant .

3. Certification Review and Decision (*review and attestation*).

- a. After all determination activities have been carried out, LSPro performs a review stage of all test reports on all samples.
- b. The decision-making stage can be carried out simultaneously with review activities carried out by competent personnel within the scope of *light – emitting diode* (LED) lamps. and not involved in the activities of determination and consultation.

4. Granting of Certificates and Use of Energy Saving Signs (License)

- a. The energy saving certificate issued by LSPro is only valid for certain families with a validity period of 4 years.

- b. If there is an application for adding a product family, a new application is submitted.
- c. The energy saving certificate contains information according to article 9 of the regulation of the Minister of Energy and Mineral Resources number 14 of 2021.
- d. LSPro is responsible for the MEPS certification issued in accordance with the provisions of the legislation.
- e. When LSPro provides MEPS certification to business actors, the license rights to use the MEPS and/or energy saving mark are also granted.
- f. LSPro inputs the product data that has been certified on the Reporting Website of DGNRE&EC of MEPS and Label Database not later than 5 working days after the certificate is issued.
- g. Scope of guarantee for energy saving *light – emitting diode* (LED) lamps based on MEPS certification, it is a guarantee when the *light – emitting diode* (LED) lamp as referred to in the scope of certification is new.
- h. The information in the Reporting Website of DGNRE&EC of MEPS and Label Database must be used as a reference in the implementation of monitoring activities.

D. LED Lamp Energy Performance Testing Requirements and Procedures

1. General

a. Scope

In accordance with letter A1 and letter A2

b. Terms and Definitions

1) Device Self-ballasted LED light

tool or series ingredient or components that become one unity with lampstand bulb type E40, E27, E26 which can be produce light coming from *light emitting diode* (LED) used for lighting or function other.

2) Rated

score amount for characteristics LED light for condition set operation

3) Test Voltage

the voltage used in the test.

4) Initial value

photometric, colorimetric and characteristic electricity at the end period aging and time stabilization.

5) Stabilization time

LED lamp is considered stable if it has been operating for at least 30 minutes and during the last 15 minutes the relative difference for the maximum and minimum value readings for light and power is less than 0.5% of the minimum value reading.

Initial ignition can take less than 30 minutes, but relative differences as stated above still apply.

If stabilization conditions are not reached within 150 minutes, the measurement can be started, and the observed fluctuations should be reported.

- 6) Requirements data retrieval
data retrieval can conduct after time stabilization achieved.
 - 7) Type
LED lights, representing lights production.
 - 8) Type test
test on one or more LED lamps, lamps representing production according to the letter A3.
 - 9) Sample Type test
one or more LED lamps submitted by the manufacturer or importer of the holder/brand owner for type testing purposes
 - 10) LED light efficacy
quotient of the measured luminous flux emitted by the rated power consumed by the LED Lamp
- c. General Condition Evaluation Test
general condition of the test assessment is carried out in accordance with the following requirements:
- 1) Type and number of samples test
Tests are carried out based on each product *family*, with the number of samples tested as many as 5 (units) units.
 - 2) Temperature and humidity
Samples were tested at a location or room free of airflow and carried out at an ambient temperature of 25 ± 1 C with a maximum relative humidity of 65%.
 - 3) Nominal Voltage
nominal voltage 220 ± 0.5 % V olt .
 - 4) Nominal Frequency
nominal frequency 50 ± 1 % Hz.
 - 5) Total Voltage Harmonic Distortion (THD-V)
Maximum Voltage Harmonic Distortion 3%.
 - 6) Placement test sample
Self-ballasted LED light tested in position vertically , position the lampstand on the top .
 - 7) Arrangement point color lamp
LED light with point color set to one score permanent like indicated by the manufacturer or seller holder / owner brand .
- d. Method Measurement Efficacy
- 1) data collection every test sample done 1 (one) time.
 - 2) for type lamps that have feature dimming (*multi brightness*), testing done on setting maximum.
 - 3) for type multi color test lamp carried out at temperature color, test carried out at maximum color temperature declared by manufacturer.
2. Normative Reference
Procedure standard this refers to partially on:

SNI IEC 62612: 2016, Self- ballasted LED lamp for service lighting general with voltage supply > 50 V – requirements performance .

3. Information Tagging

Report minimum test results must be include information data tagging as following :

Table-2. Information Required marking self-ballasted LED

	Product	Packaging
a. Rated luminous flux (lm)	X	X
b. temperature color or <i>Correlated Color Temperature</i> (CCT)	-	X
c. Rated power (watts)	X	X
d. Rated efficacy (lm/W)	-	X
e. Production code		X

Information:

X = Required, - = Not required

4. Provision Report Test

- a. Whole test results must be could store and documented in form report test, contains measurement data, characteristics performance and details every incident disturbance, damage or retest.
- b. Copy of report this must store by the test laboratory for necessity reference.
- c. The final test result is the average of testing 5 samples per type and brand.

Table-3. Self -ballasted LED Measurement Results

No	Number product / Sample	Measurement Results						
		CCT	PF	V	I	P	Luminous Flux	Efficacy
		K	-	Volt	A	Watt	lm	lm/Watt
1								
2								
3								
4								
5								
Minimum								
Maximum								
Average								

d. Testing Report format

Testing report format load based on content and order in the list as called in description as following, however no limited to those mentioned, institutions laboratory examiner could add in accordance with needs applicant.

1. Standard Reference/test method
2. Description tested object
3. Measurement Result Table
4. Chart power to time (optional)
5. Chart flux light to time (optional)
6. *Chromaticity* chart xy (optional)
7. Photo lamp body marking
8. Photo marking on box lamp
9. Photo sample lamp and box (wrapper)

e. Suitability

1) Power

- a) Power initial consumed by the LED lamp on the sample being measured no can exceed power identifier more than 10%.
- b) Power the initial average consumed by the LED lamp in the sample being measured no can exceed power identifier more of 7.5%.

2) Light Flux

- a) Flux the early light of each individual LED light on the measured sample should not be less from flux rated light is more than 10%.
- b) average luminous flux of the LED lamp in the sample measured shall not be less than the rated luminous flux of more than 7.5 % .

3) Efficacy

For all units tested in something example, efficacy LED light is not cannot enough than 80% efficacy LED lamp as stated by the manufacturer or seller owner/holder brand.

E. LED Light Energy Saving Certification Exemption

LED lamps for other purposes that do not require Energy Saving Certificates:

1. Maximum energy efficiency test sample as much as 6 (six) units per family;
2. Maximum safety SNI test sample as many as 16 (sixteen) units per type;
3. maximum exhibition as many as 5 (five) units per type;
4. Sample for maximum research as many as 16 (sixteen) units per type; and/or ;
5. Other purposes with the aim of not being traded maximum as many as 5 (five) units of type.

F. LED Light Surveillance Test Results

The amount of tolerance between the results of the surveillance test and the value of the energy saving level listed on the Energy Saving marking Label with power range :

1. up to 10 watts by 15%
2. >10 – 25 by 10%
3. >25 – 60 by 10%

APPENDIX II
DECREE OF THE MINISTER OF ENERGY AND MINERAL
RESOURCES REPUBLIC OF INDONESIA
NUMBER
ABOUT
MINIMUM ENERGY PERFORMANCE STANDARDS AND ENERGY
SAVE MARKING LABELS FOR LIGHTS – *EMITTING DIODES* (LED)

MINIMUM ENERGY PERFORMANCE STANDARDS AND MARKING LABEL OF
ENERGY SAVING FOR LAMP *LIGHT – EMITTING DIODE* (LED) SWABALAST
TUBE

A. LED Light Type

1. General

LED light tube self-ballast is a tool or series ingredient or components that become one unity with lampstand tube type *double capped* G13 that can be produce light coming from *light emitting diode* (LED) used for lighting or function other.

2. HS Code

Tube LED light self-ballast regulated in this Ministerial Decree are LED lights tube with power identifier until with 60 Watts and voltage identifier > 50Va.b. up to 250Va.b which has HS code ex. 8539.52.10 or the changes.

3. Product Family

LED light tube self-ballasted is a *product family* if:

- a. same brand;
- b. have the same shape ;
- c. have the same diameter.

B. Energy Saving Value, Shape and Specification of Energy Saving Marking Label for the Tube LED light self-ballast

1. Minimum Energy Performance Standard Values for LED Lights tube i.e. the energy consumption level of the lamp Tube LED self-ballast at 100 lumens per watt.

2. Energy Saving Marking Scheme

- a. The affixing of the MEPS of the Energy Saving Marking originating from imports is carried out in the country of origin.
- b. Outstanding products after certificate expired and produced before certificate end still permanent allowed circulated.
- c. MEPS is imprinted on the product and packaging by using an easy-to-read an proportional font size and printed or attached with a material that is not easily lost.
- d. MEPS Energy Saving Marking on the packaging can be printed using one contrasting color.
- e. The form and specifications of the Energy Saving Marking MEPS are as shown in the following figure:



Nomor SHE :

Kata/Frasa	Jenis Huruf	Warna Dasar	Tebal & Warna border
"SKEM"	Bouhoue 93	Putih	Tanpa Border
"Nomor SHE"	Arial (Bold)	Hitam	Tanpa Border
"Warna Dasar Label SKEM"	Biru Navy #000080		
UKURAN LABEL	Menyesuaikan		

Figure-3. Shape and Specifications of MEPS/SKEM for LED Self-ballasted Tube

C. Type of minimum energy performance standard (MEPS) certification or label for energy-consuming equipment for light – emitting diode (LED) lamps

MEPS or label certification is implemented out for light – emitting diode (LED) lighting products using a certification system consisting of selection, determination, review, certification and licensing decisions. In general, the procedure for applying for certification of minimum energy performance standards or labels for *light-emitting diode* (LED) energy-consuming equipment is in accordance with the certification process is in accordance with the below diagram:

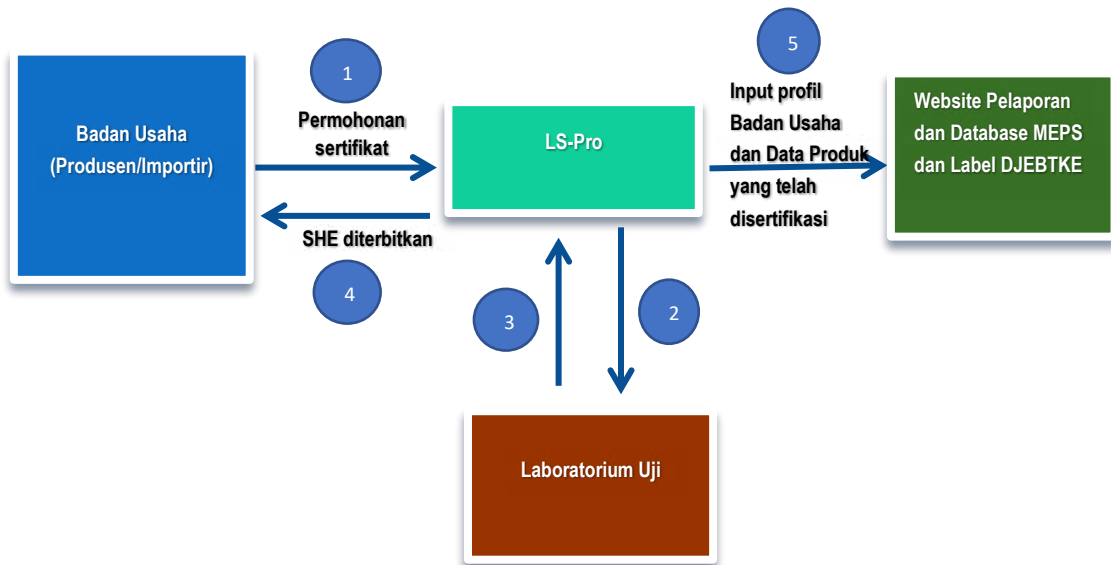


Diagram-2. Submission Flow MEPS and Label Certification Lamp *Light – Emitting Diode* (LED)

1. Application requirements (selection) .

- a. MEPS certification can be submitted by the perpetrator business (producer/importer) to LSPro that has been accredited and appointed by the Minister of Energy and Mineral Resources.
- b. For foreign producers as referred to in number 1 letter a applying for MEPS certification, must appoint an official representative company which has a function as an importer or an importing company domiciled in Indonesia.

- c. The importer as referred to in letter b is proven by: licensing based on statutory regulations as well as responsible for everything that happens to the fulfillment provisions for the mandatory application of MEPS certification on lamps *light – emitting diode* (LED) import origin referred to circulating in Indonesia.
- d. Business actors who apply for MEPS lamp certification *light – emitting diode* (LED), mandatory fulfill administrative requirements, by submitting a letter of application and showing original documents and submitting photos copy document:
 - 1) Number Permission Endeavor (NIB) or Industrial Business License (IUI) or Industrial Registration Certificate (TDI) for domestic producers;
 - 2) Importer Identification Number (API), Customs Identification Number (NIK) and Limited Importer (IT) for importers;
 - 3) Trademark Certificate or Mark Registration Certificate (Registration Certificate) Mark) issued by the Directorate General of Property Rights Intellectuals (HKI) of the Ministry of Law and Human Rights for LED lights and/or License Agreement from the brand owner for brands that are has been registered with the Directorate General of Property Rights Intellectuals (HKI) of the Ministry of Law and Human Rights in accordance with the provisions Article 43 of Law Number 15 of 2001 concerning Marks;
 - 4) Statement/declaration of commitment not to circulate light-emitting diode (LED) lamps during the certification process and to always maintain product conformity with SNI requirements.
 - 5) Declaration of applying ISO 9001 if you do not have proof of a quality management system certificate.
 - 6) The application form determined by LSPro must contain at least information about:
 - a) Manufacturing company information
 - b) Importer Information (if applicable)
 - c) Certified product technical information.
 - d) Marking information on product packaging and production code
 - 7) Sample test of Energy Utilizing Equipment with appropriate amount according to the letter D number 1 letter c.

2. Certification process requirements (determination) .

- a. Lamp *light – emitting diode* (LED) domestic and origin import product testing is mandatory by a laboratory of Examiners appointed by the Minister and in cooperation with LS Pro corresponds to the letter D.
- b. The test results of the light – emitting diode (LED) lamp as referred to in number 2 letter a, shall be stated in the Test Result Report (LHU) that meets the requirements.
- c. In issuing the MEPS certificate, LSPro cooperates with the Test Laboratory to conduct tests on samples from Domestic Producers or Importers.
- d. The number of samples is in accordance with the requirements in letter D.

- e. If there is a discrepancy between the test results and the requirements for passing the test in accordance with this SNI/Ministerial Decree, then LSPro will notify the applicant of the problem for root cause investigation and re-testing by the certification applicant.
- f. The re-test can be carried out at most 1 time within 6 months from the date of application for certification on cost applicant .

3. Certification Review and Decision (*review and attestation*)

- a. After all determination activities have been carried out, LSPro performs a review stage of all test reports on all samples.
- b. The decision-making stage can be carried out simultaneously with review activities carried out by competent personnel within the scope of *light – emitting diode* (LED) lamps and not involved in the activities of determination and consultation.

4. Granting of Certificates and Use of Energy Saving Marking (License)

- a. The energy saving certificate issued by LSPro is only valid for certain families with a validity period of 4 years.
- b. If there is an application for adding a product family, a new application is submitted.
- c. The energy saving certificate contains information according to article 9 of the regulation of the Minister of Energy and Mineral Resources number 14 of 2021.
- d. LSPro is responsible for the MEPS certification issued in accordance with the provisions of the legislation.
- e. When LSPro provides MEPS certification to business actors, the license rights to use the MEPS and/or energy saving mark are also granted.
- f. LSPro inputs the product data that has been certified on the Reporting Website of DGNRE&EC of MEPS and Label Database not later than 5 working days after the certificate is issued.
- g. Scope of guarantee for energy saving *light – emitting diode* (LED) lamps based on MEPS certification, it is a guarantee when the *light – emitting diode* (LED) lamp as referred to in the scope of certification is new.
- h. The information in the Reporting Website of DGNRE&EC of MEPS and Label Database must be used as a reference in the implementation of monitoring activities.

D. Energy Performance Testing Requirements and Procedures for LED Tube Lights self-ballast

1. General

a. Scope

Appropriate by letter A1 and letter A2.

b. Terms and Definitions

1) Device Tube LED lights

tool or series ingredient or components that become one unity with lampstand tube type double capped G13 which can be

produce light coming from of the light emitting diode (LED) used for lighting or function other.

- 2) Rated
score amount for characteristics LED light for condition set operation.
- 3) Voltage Test
the voltage used in the test.
- 4) Initial value
photometric, colorimetric and characteristic electricity at the end period aging and time stabilization
- 5) Stabilization time
LED lamp is considered stable if it has been operating for at least 30 minutes and during the last 15 minutes the relative difference for the maximum and minimum value readings for light and power is less than 0.5% of the minimum value reading.

Initial ignition can take less than 30 minutes, but relative differences as stated above still apply

If stabilization conditions are not reached within 150 minutes, the measurement can be started, and the observed fluctuations should be reported.

- 6) Requirements data retrieval
data retrieval can conduct after time stabilization achieved.
- 7) Type
LED lights, representing lights production
- 8) Type test
conformity test on one or more LED lamps, lamps representing production according to the letter A3.
- 9) Sample Type test
one or more LED lamps submitted by the manufacturer or importer are responsible for type testing purposes
- 10) LED light efficacy
quotient of the measured luminous flux emitted by the rated power consumed by the LED Lamp.

c. General Condition Evaluation Test

general condition of the test assessment is carried out in accordance with the following requirements:

- 1) Type and number of samples test

Tests are carried out based on each product *family*, with the number of samples tested as many as 3 (three) units.

- 2) Temperature and humidity
Samples were tested at a location or room free of airflow and carried out at an ambient temperature of 25 ± 1 C with a maximum relative humidity of 65%.
- 3) Nominal Voltage
nominal voltage 220 ± 0.5 % Volt.
- 4) Nominal Frequency
nominal frequency 50 ± 1 % Hz.
- 5) Total Voltage Harmonic Distortion (THD-V)
Maximum Voltage Harmonic Distortion 3%.

d. Test Method

- 2) General
 - a) Refers to the number 7.1
 - b) The LED tube light was tested in a horizontal position, with the placement of the self-ballasted tube lamp to be tested in the direction of the *baffle position* (see Figure-5).
 - c) If the lamp cannot be positioned according to the provisions of the number in letter d number 1) letter b) , then make sure the baffle can withstand light so that the light receiving sensor is not directly exposed to the light beam of the self-ballasted tube LED lamp.



Figure-5. Sample Placement of Self-ballasted Tube LED

- 3) Efficacy Measurement Method
 - a) data collection every test sample done 1 (one) time.
 - b) for type lamps that have feature dimming (*multi brightness*), testing done on setting maximum.
 - c) for type multi color test lamp carried out at temperature color, test carried out at maximum color temperature declared by manufacturer.

2. Reference normative

Procedure standard this refers to partially on:

SNI IEC 62612: 2016, Self- ballasted LED lamp for service lighting general with voltage supply > 50 V – requirements performance .

3. Information Tagging

Report minimum test results include information data tagging as following :

Table-4. Information Required marking LED _
Tube self-ballast

	Product	Packaging
f. Rated luminous flux (lm)	X	X
g. temperature color or Correlated Color Temperature (CCT)	-	X
h. Rated power (watts)	X	X
i. Efficacy rating (lm/W)	-	X
j. Production code		X

Information:

X = Required, - = Not required

4. Provision Report Test

- a. Whole test results must be could store and documented in form report test, contains measurement data, characteristics performance and details every incident disturbance, damage or retest.
- b. Copy of report this must store by the test laboratory for necessity reference.
- c. The final test result is the average of testing 3 (three) samples per type family and brand.

Table-5. Tube LED Measurement Results self-ballast

No	Number product / Sample	Measurement Results						
		CCT	PF	V	I	P	Luminous Flux	Efficacy
		K	-	Volt	A	Watt	lm	lm /Watt
1								
2								
3								
Low								
Maximum								
Average								

d. Testing Report format

Testing report format load based on content and order in the list as called in description as following, however no limited to those

mentioned, institutions laboratory examiner could add in accordance with needs applicant.

1. Standard Reference/test method
2. Description tested object
3. Measurement Result Table
4. Chart power to time (optional)
5. Chart flux light to time (optional)
6. Xy chromaticity chart (optional)
7. Photo lamp body marking
8. Photo marking on packaging and packaging lamp
9. Photo sample lights and packaging

e. Suitability

1) Power

- a) Power initial consumed by the LED lamp on the sample being measured no can exceed power identifier more than 10%.
- b) Power the initial average consumed by the LED lamp in the sample being measured no can exceed power identifier more of 7.5%.

2) Light Flux

- a) Flux the early light of each individual LED light on the measured sample should not be less from flux rated light is more than 10%.
- b) average luminous flux of the LED lamp in the sample measured shall not be less than the rated luminous flux of more than 7.5 % .

3) Efficacy

For all units tested in something example, efficacy LED light is not cannot enough than 80% efficacy LED lamp as stated by the manufacturer or seller holder/owner brand .

E. LED Light Energy Saving Certification Exemption

LED lamps for other purposes that do not require Energy Saving Certificates:

1. Maximum energy efficiency test sample as many as 5 (five) units per family;
2. Maximum safety SNI test sample as many as 16 (sixteen) units per type;
3. maximum exhibition as many as 5 (five) units per type;
4. Sample for maximum research as many as 16 (six twelve) units per type; and/or
5. Other purposes with the aim of not being traded a maximum of 5 (five) units of type.

F. LED Light Surveillance Test Results

The amount of tolerance between the results of the picking test and the value of the energy-saving level listed on the Energy Saving marking Label is a maximum of 10%.

APPENDIX III
DECREE OF THE MINISTER OF ENERGY AND MINERAL
RESOURCES REPUBLIC OF INDONESIA
NUMBER
ABOUT
MINIMUM ENERGY PERFORMANCE STANDARDS AND ENERGY
SAVE MARKING LABELS FOR LIGHTS – *EMITTING DIODES* (LED)
LUMINERS

MINIMUM ENERGY PERFORMANCE STANDARDS AND ENERGY SAVING
MARKING LABELS FOR LAMP LIGHT – *EMITTING DIODE* (LED) LUMINER

A. LED Light Type

1. General

LED luminaire is a unit consisting of an LED lamp and a system electronic its support as a light source along with an armature designed to distribute light, protect the lamp and to connect the lamp to the power supply.

2. HS Code

LED adjustable luminaire _ in this Ministerial Decree is an LED luminaire for type Street Lighting Equipment (APJ) includes lamp light Street general , lights sidewalks and lights *tunnel light* , with power identifier until with 250 Watts, and voltage rated > 50 Va.b . until with 300 Va.b. which has HS code ex. 9405.42.50 or the changes

3. Product Family

LED Luminaire is a *product family* if:

- a. same brand;
- b. the luminaire has same shape;
- c. *drivers* with the same specifications .

B. Energy Saving Rate Value, Shape and Specification of Energy Saving Marking Label for LED Light

1. Minimum Energy Performance Standard Values for LED Lights i.e. the energy consumption level of the LED Luminaire at 120 lumens per watt

1. Energy Saving Marking Scheme

- a. The affixing of the MEPS of the Energy Saving Marking originating from imports is carried out in the country of origin.
- b. Outstanding products after certificate expired and produced before certificate end still permanent allowed circulated.
- c. MEPS is imprinted on the product and packaging by using an easy-to-read and proportional font size and printed or attached with a material that is not easily lost.
- d. MEPS Energy Saving Marking on the packaging can be printed using one contrasting color.

e. The form and specifications of the Energy Saving Marking MEPS are as shown in the following figure:

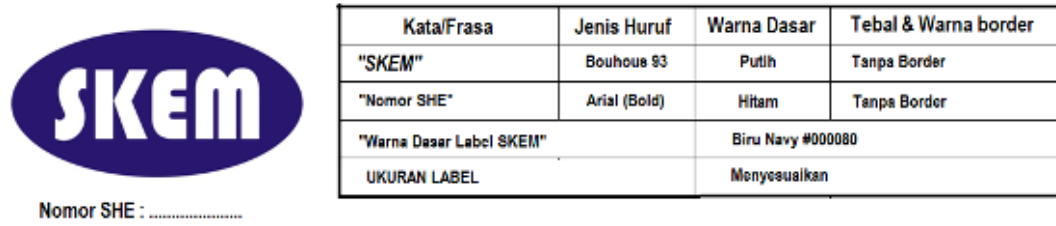


Figure-6. Shape and Specifications of MEPS/SKEM for LED Luminaire

C. Type of minimum energy performance standard (MEPS) certification or label for energy-consuming equipment for light – emitting diode (LED) lamps

MEPS certification or labels are implemented for *light-emitting diode* (LED) lighting products using a certification system consisting of selection, determination, review, certification and licensing decisions. In general , the procedure for applying for certification of minimum energy performance standards or labels for energy-consuming equipment for *light-emitting diode* (LED) lamps in accordance the certification process is in accordance with the below diagram:

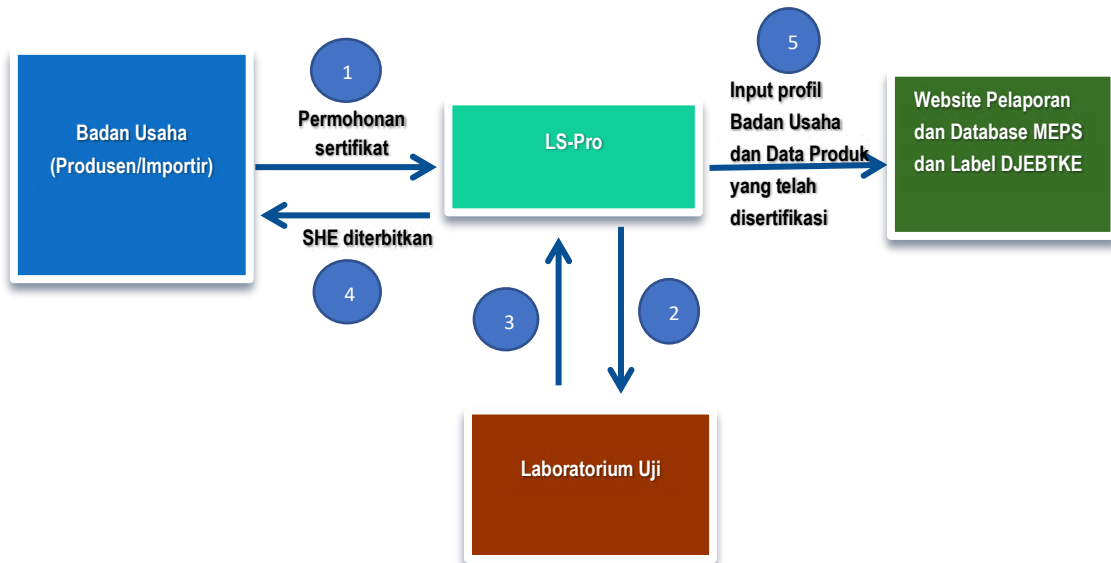


Diagram-3. Submission Flow MEPS and Label Certification Lamp *Light – Emitting Diode* (LED)

1. Application requirements (selection) .

a. MEPS certification can be submitted by the perpetrator business (producer/importer) to LSPro that has been accredited and appointed by the Minister of Energy and Mineral Resources.

- b. For foreign producers as referred to in number 1 letter a applying for MEPS certification, must appoint an official representative company which has a function as an importer or an importing company domiciled in Indonesia.
- c. The importer as referred to in letter b is proven by: licensing based on statutory regulations as well as responsible for everything that happens to the fulfillment provisions for the mandatory application of MEPS certification on lamps *light – emitting diode* (LED) import origin referred to circulating in Indonesia.
- d. Business actors who apply for MEPS lamp certification *light – emitting diode* (LED), mandatory fulfill administrative requirements, by submitting a letter of application and showing original documents and submitting photos copy document:
 - 1) Number Permission Endeavor (NIB) or Industrial Business License (IUI) or Industrial Registration Certificate (TDI) for domestic producers;
 - 2) Importer Identification Number (API), Customs Identification Number (NIK) and Limited Importer (IT) for importers;
 - 3) Trademark Certificate or Mark Registration Certificate (Registration Certificate) Mark) issued by the Directorate General of Property Rights Intellectuals (HKI) of the Ministry of Law and Human Rights for LED lights and/or License Agreement from the brand owner for brands that are has been registered with the Directorate General of Property Rights Intellectuals (HKI) of the Ministry of Law and Human Rights in accordance with the provisions Article 43 of Law Number 15 of 2001 concerning Marks;
 - 4) Statement/declaration of commitment for no circulate lamp *light – emitting diode* (LED) during the certification process and always guard suitability product with SNI requirements.
 - 5) Statement letter implement ISO 9001 when no have proof certificate system management quality .
 - 6) The application form determined by LSPro must contain at least information about:
 - a) Manufacturing company information
 - b) Information Importer (if applicable)
 - c) Certified product technical information.
 - d) Marking information on product packaging and production code
 - 7) Sample test of Energy Utilizing Equipment with amount according to the letter D number 1 letter c.

2. Certification process requirements (determination) .

- a. Lamp *light – emitting diode* (LED) domestic and origin import product testing is mandatory to a laboratory of Examiners appointed by the Minister and in cooperation with LS Pro corresponds to the letter D.

- b. The test results of the *light – emitting diode* (LED) lamp as referred to in number 2 letter a, shall be stated in the Test Result Report (LHU) that meets the requirements.
- c. In issuing the MEPS certificate, LSPro cooperates with the Test Laboratory to conduct tests on samples from Domestic Producers or Importers.
- d. The number of samples is in accordance with the requirements in letter D.
- e. If there is a discrepancy between the test results and the requirements for passing the test in accordance with this SNI/Ministerial Decree, then LSPro will notify the applicant of the problem for root cause investigation and re-testing by the certification applicant.
- f. The re-test can be carried out at most 1 time within 6 months from the date of application certification on cost applicant.

3. Certification Review and Decision (*review and attestation*)

- a. After all determination activities have been carried out, LSPro performs a review stage of all test reports on all samples.
- b. The decision-making stage can be carried out simultaneously with review activities carried out by competent personnel within the scope of *light – emitting diode* (LED) lamps and not involved in the activities of determination and consultation.

4. Granting of Certificates and Use of Energy Saving Marking (License)

- a. The energy saving certificate issued by LSPro is only valid for certain families with a validity period of 4 years.
- b. If there is an application for adding a product family, a new application is submitted.
- c. The energy saving certificate contains information according to article 9 of the regulation of the Minister of Energy and Mineral Resources number 14 of 2021.
- d. LSPro is responsible for the MEPS certification issued in accordance with the provisions of the legislation.
- e. When LSPro provides MEPS certification to business actors, the license rights to use the MEPS and/or energy saving mark are also granted.
- f. LSPro inputs product data that has been certified on the Reporting Website of DGNRE&EC of MEPS and Label Database not later than 5 working days after the certificate is issued.
- g. Scope of guarantee for energy saving *light – emitting diode* (LED) lamps based on MEPS certification, it is a guarantee when the *light – emitting diode* (LED) lamp as referred to in the scope of certification is new.
- h. The information in the Reporting Website of DGNRE&EC of MEPS and Label Database must be used as a reference in the implementation of monitoring activities.

D. LED Lamp Energy Performance Testing Requirements and Procedures

1. General

a. Scope

In accordance with letter A2 and letter A3.

b. Terms and Definitions

1) Luminaire LED Lighting Device

LED Luminaire is a unit consisting of an LED lamp and its supporting electronic system as a light source along with an armature designed to distribute light, protect the lamp and to connect the lamp to a power supply.

2) Rated

sum values for the characteristics of the LED lamps for the specified operating conditions

3) Voltage Test

voltage input initial used before testing.

4) Initial value

photometric, colorimetric and electrical characteristics at the end of the aging period and stabilization time.

5) Stabilization time

LED lamp is considered stable if it has been operating for at least 30 minutes and during the last 15 minutes the relative difference for the maximum and minimum value readings for light and power is less than 0.5% of the minimum value reading.

Initial ignition can take less than 30 minutes, but relative differences as stated above still apply

If stabilization conditions are not reached within 150 minutes, the measurement can be started, and the observed fluctuations should be reported.

6) Requirements data retrieval

retrieval can be done after stabilization time achieved .

7) Type

LED lights, lights that represent production

8) Type test

conformity test on one or more LED luminaires, lamps representing production according to the letter A3.

9) Sample Type test

one or more LED lamps submitted by the manufacturer or the owner/brand holder seller for type testing purposes

10) LED light efficacy

quotient of the luminous flux emitted by the power consumed by the LED Lamp.

c. General Condition Evaluation Test

general condition of the test assessment is carried out in accordance with the following requirements:

- 1) Type and number of test samples
Tests are carried out based on each product *family*, with a total sample of 1 (one) unit.
- 2) Temperature and humidity b an
The sample is tested at a location or room free of airflow and carried out at an ambient temperature of 25 ± 1 C with a relative humidity of maximum 65 %.
- 3) Nominal Voltage
The test sample was operated at a nominal voltage of 220 ± 0.5 % Volt.
- 4) Nominal Frequency
nominal frequency $50 \pm 1\%$ Hz.
- 5) Total Voltage Harmonic Distortion (THD-V)
Harmonic Distortion 3%.

d. Method Test

1) Placement sample .

test sample is placed at position installation test equipment and position sensor reading is at point middle field light .

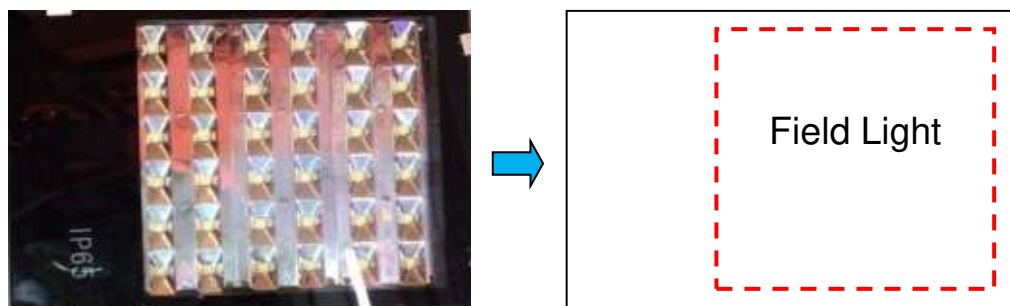


Figure-7. Field of LED Luminaire

2) Measurement Electrical Power, Photometry and Colorimetry and Light Flux

- a) Attach the test luminaire to in photometric test instrument (*integrating sphere* or *goniophotometer*), with supply voltage $220 \pm 0.5\%$ Volt, turn on test luminaire and carry out the stabilization process.
- b) After stabilization process achieved, do data retrieval.

3) Efficacy Measurement Method

c. Report format testing

Report format testing load based on content and order in the list as called in description as following, however no limited to those mentioned, institutions laboratory examiner could add in accordance with needs applicant.

1. Standard Reference / test method
2. Description tested object _
3. Measurement Results
 - 3.1 Dimension luminaire
 - 3.2 Electrical Data
 - 3.3 Photometric Data
 - 3.4 *Color Rendering Details* (optional)
 - 3.5 *Spectral Distribution* (optional)
 - 3.6 *Beam Angle*
 - 3.7 *Iso -Candela Diagram* (optional)
 - 3.8 *Iso -Lux Diagram* (optional)
4. Photo lamp body marking
5. Photo marking on packaging and photos packaging lamp
6. Front look, side look and backward look of photo lamp sample.

d. Suitability

1) Power

- a) Power initial consumed by the LED luminaire in the sample being measured not exceed power identifier more than 10%.
- b) Power the average start consumed by the LED luminaire in the sample being measured not exceed power identifier more of 7.5%.

2) Flux Light

- a) Flux the early light of each individual LED luminaire in the sample measured cannot be less from flux rated light is more than 10%.
- b) Average luminous flux of LED luminaire in the sample measured shall not be less than the rated luminous flux by more than 7.5 %.

3) Efficacy

For all units tested in something example, efficacy LED luminaire cannot enough than 80% efficacy LED luminaire as stated by the manufacturer or importer holder brand.

E. Energy Saving Certification Exemption for LED Luminaires

LED luminaires for other purposes that do not require Energy Saving Certificates:

1. Maximum energy efficiency test sample as many as 2 (two) units;
2. Maximum safety SNI test sample as many as 5 (five) units per type;
3. Sample for exhibition a maximum of 5 (five) units per type;

4. Sample for maximum research as many as 5 (five) units per type; and/or
5. Other purposes with the aim of not being traded a maximum of 5 (five) units of type.

F. Tolerance of Non-conformance Test Results for LED Luminaires

The amount of tolerance between the results of the surveillance test and the value of the energy-saving level listed on the Energy Saving Marking Label is a maximum of 10%.

Disclaimer, if there are any differences meaning in English translation, the actual meaning will be returned back to the official/original MEMR Ministerial Decree Number 135.K/EK.07/DJE/2022 in Bahasa.