

# POSSIBLE ALTERNATIVE TO THE VERIFICATION PROCEDURE ON LED LUMINAIRES

## Article 1 (Scope)

(...)

LED modules shall be exempted from the requirements of this Regulation if they are marketed as part of luminaires that are

- (a) not marketed to end-users; or
- (b) designed for a particular client according to his specific requirements; or
- (c) listed in the catalogue of a manufacturer and produced only on request of a client; or
- (d) placed on the market in less than 200 copies per year.

## ANNEX IV

### Verification procedure for market surveillance purposes

(...)

#### **2. VERIFICATION PROCEDURE FOR ~~INTEGRAL~~ LED MODULES NOT INTENDED TO BE REMOVED FROM THE LUMINAIRE BY THE END-USER**

For the purposes of the tests described below, Member States' authorities shall obtain test ~~sample batches~~units of the same model from the same manufacturer (of LED modules or luminaires, as applicable), where possible in equal proportion from randomly selected sources. For points (1), (3) and (5) below, the number of sources shall be at least four where possible. For point (2), the number of sources shall be at least four where possible, unless the number of luminaires necessary to obtain by extraction 20 LED modules of the same model is less than four, in which case the number of sources is equal to the number of luminaires needed. For point (4), if the test on the first two luminaires fails, the next three to be tested ~~must~~shall come from three other sources where possible.

Member States' authorities shall apply the following procedure in the order given below, until a conclusion regarding the compliance of model(s) of the LED module(s) is reached, or they are able to test or they conclude that testing is impossible. "Luminaire" refers to the luminaire containing the integral LED modules, and "testing" refers to the procedure described in part 1 of this Annex, except in point (4): If testing according to both points (1) and (2) is allowed in the technical documentation file, the authorities may choose the most appropriate method.

- (1) If the technical documentation file of the luminaire provides for testing the whole luminaire as a lamp, the authorities shall test 20 luminaires as lamps. If the model of the luminaire is considered to comply, the model(s) of the LED module(s) shall be considered to comply with the requirements laid down in this Regulation. If the model of the luminaire is considered not to comply, the model(s) of the LED module(s) shall be considered not to comply either.

- (2) ~~If testing according to paragraph (1) is not possible, and~~ Otherwise, if the technical documentation file of the luminaire allows for the removal of the LED module(s) for testing, the authorities shall obtain enough luminaires to obtain 20 copies of each incorporated LED module model. They shall follow the instructions of the technical documentation file to dismantle the luminaires and test each LED module model separately. The conclusion regarding the compliance of the model(s) of the LED module(s) shall follow from the test(s).
- ~~If testing according to both points (1) and (2) is allowed in the technical documentation file, the authorities may choose the most appropriate method.~~
- (3) ~~Otherwise, If testing is not possible according to point (1) or (2), and if~~ according to the technical documentation file of the luminaire, the luminaire manufacturer obtained the incorporated LED module(s) as individual CE marked product(s) from the Union market, the authorities shall obtain 20 copies of each LED module model from the Union market for testing and test each LED module model separately. The conclusion regarding the compliance of the model(s) of the LED module(s) shall follow from the test(s). If the model(s) are not available any more on the Union market, market surveillance cannot be performed.
- (4) ~~Otherwise, If testing according to points (1) or (2) is not possible, and if~~ the luminaire manufacturer did not obtain the incorporated ~~integral~~ LED module(s) as individual CE marked products from the Union market, the authorities shall request the luminaire manufacturer to deliver a copy of the original test data of the ~~integral~~ LED module(s) ~~which is provided in the technical documentation file~~ showing that the ~~integral~~ LED module(s) comply with the requirements applicable to:
- all LED modules in Table 5 of this Regulation;
  - if they are directional LED modules, in Tables 1 and 2 of this Regulation;
  - if they are non-directional LED modules, in Tables 1, 2 and 3 of Commission Regulation 244/2009.

If such test data on the LED module(s) is not provided, or if according to the test data, any of the LED modules model(s) in the luminaire do not comply with the requirements, the model(s) of the LED module(s) shall be considered not to comply.

Otherwise, the authorities shall dismantle a single luminaire to check that the LED module(s) in the luminaire are the same type as described in the test data. If any of them is different or cannot be identified, the the model(s) of the LED module(s) shall be considered not to comply.

Otherwise, the switching cycles, premature failure, starting time and warm-up time requirements of Table 5 shall be tested on the ~~complete~~ luminaire operated at its rating. During operation of the luminaire at its rated values, the temperature of the ~~integral~~ LED module(s) shall be also tested against the defined limits. If the results of the tests (other than on premature failure) vary from the limit values by more than 10%, or the luminaire failed prematurely, three more luminaires shall be tested. If the averages of the results of the subsequent three tests (other than those relating to premature failure and to operating temperature)

do not vary from the limit values by more than 10%, none of the luminaires failed prematurely, and the operating temperature (in °C) is within 10% of the defined limits in all three of them, the model(s) of the LED module(s) shall be considered to comply with the requirements. —Otherwise, they shall be considered not to comply.

- (5) If testing according to points (1), (2) and (4) is not possible, and the luminaire manufacturer did not obtain the incorporated ~~integral~~ LED modules as individual CE marked products from the Union market, the authorities shall test 20 luminaires as lamps. If the model of the luminaire is considered to comply, the model(s) of the LED module(s) shall be considered to comply with the requirements laid down in this Regulation. If the model of the luminaire is considered not to comply, the model(s) of the LED module(s) shall be considered not to comply either.