

UMSUG123/02 – CLARIFICATION OF GENERIC LED LIGHTING CHARGE CODE PROCESS

MEETING NAME UMSUG 123

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Purpose of paper Decision

Classification Public

Summary This paper identifies areas of the Generic LED Lighting Charge Code process that manufacturers believe are currently vague and could be better clarified. We invite the UMSUG to discuss these and agree any clarifications that it believes are necessary.

1. Background

- 1.1 Generic LED Lighting Charge Codes were implemented on 15 June 2016 through changes to the [Operational Information Document](#) (OID).¹ Since then, manufacturers have applied for Generic LED Lighting Charge Code 'ranges', with applications and test data being submitted based on the current OID and associated guidance for [manufacturers](#) and [Customers](#).
- 1.2 Many Generic LED Lighting Charge Code ranges have passed the Unmetered Supplies User Group's (UMSUG's) review process and been approved by the Supplier Volume Allocation Group (SVG). However, discussions between ELEXON, manufacturers and UMSUG members have revealed differing interpretations of the testing requirements. This paper identifies these and seeks the UMSUG's views.
- 1.3 ELEXON originally brought this paper to UMSUG122 on 1 March 2018 ([paper 122/04](#)). However, due to the adverse weather on the day of the meeting, the UMSUG deferred its discussion until UMSUG123. The paper contents are unchanged from the previous version.

2. Current requirements for obtaining Generic LED Lighting Charge Code ranges

2.1 The OID states the Applicant must provide:

- data showing the power range of the driver settings that can be used; and either
 - a load curve based on test data from sufficient different dimming levels (to include full power and the minimum dimming level); or
 - details of legacy LED products to be mapped to generic Charge Codes (test results not required).

2.2 The guidance for manufacturers states that:

'The five points of test data must include the equipment at full power, at its lowest dimmed level and then at three other separate points in between. For example, if a piece of lighting equipment runs at 100W when at full power, and can dim down to 20W, we require test data at those two points, then **also** three points in between those values, such as at 80%, 60% and 40% dimming.'

¹ See SVG paper [178/02](#).

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3. Current issues

- 3.1 Manufacturers have commented that the guidance does not fully explain what the 'lowest dimmed level' means. For example, one manufacturer notes that its lighting equipment could technically be powered at the absolute lowest wattage possible, but the equipment would never realistically be used in that manner by the Customer when in operation. They are therefore unsure what should be tested for the lower end of the Charge Code range. It has been argued by one manufacturer that all lighting equipment should be tested at 0% light output, as that is the lowest level the product can dim to.
- 3.2 Some manufacturers are not sure of the lowest level to which the Customer will dim their product when in operational use. This creates difficulties when proving the validity of the 'lower range' of a Generic LED Lighting Charge Code range.
- 3.3 Manufacturers have commented that it is also not clear whether Generic LED Lighting Charge Code ranges should cover the entire driver's capable output, or have multiple ranges to cover all possible variants for which the driver will be used. This is related to the 'upper limit' part of the Generic LED Lighting Charge Code range, where various versions of a product can run at different maximum wattages. For example, one piece of lighting equipment with 24 LEDs has three versions that are available to purchase (each programmed at 700mA, 500mA and 300mA drive current).
- 3.4 There is confusion as to whether the 'lower range' part of a Generic Lighting LED Charge Code range should represent the lowest a piece of equipment can dim to, or the maximum output of the lowest driven version of a product. For example, if a Generic LED Lighting Charge Code range extends from 20W to 100W, does the 20W represent the lowest level to which a piece of equipment can dim to, or does it represent the maximum output of the lowest drive current version available to purchase?

4. Next steps

- 4.1 We invite the UMSUG to discuss these areas and agree what clarifications may need to be made to the OID and/or the guidance. If clarifications are required, we will bring draft redlining to the next UMSUG meeting for review. For any applications received in the meantime, we can inform Applicants of the latest UMSUG view.

5. Recommendations

- 5.1 We invite you to:
 - a) **NOTE** the areas in which manufacturers believe that the testing requirements for Generic LED Lighting Charge Code ranges lack clarity;
 - b) **AGREE** the scope of any necessary clarifications to the OID and/or guidance; and
 - c) **NOTE** that, if clarifications are required, ELEXON will bring draft redlining to the next UMSUG meeting for review.

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