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Distribution: LED Luminaire solution providers.

ANNOUNCEMENT OF LED LUMINAIRE PRODUCT CERTIFICATION UNDER SGBP SCHEME

Background

1 This circular serves to inform the industry about the introduction of the new Light-Emitting Diode (LED) Luminaire criteria under the Singapore Green Building Product (SGBP) certification scheme.

2 The National Environment Agency (NEA) promotes the adoption of LED bulbs through the Minimum Energy Performance Standards (MEPS). LED bulbs offer significantly higher energy efficiency compared to traditional incandescent lightbulbs, contributing to reduced operational energy consumption in buildings. LED bulbs also provide a longer service life, lower maintenance requirements, and more stable luminous output and efficiency over time, supporting consistent lighting performance throughout their lifecycle.

Scope of LED Luminaire Category in SGBP

3 For the purpose of SGBP certification, the **LED Luminaire** is defined as the complete lighting unit that can be connected to the mains supply through an integrated or separate transformer. In addition to the housing, it contains an LED module and a reflector and/or lens, as well as a heat sink to transfer heat away from the diodes.

Evaluation Criteria

4 The LED luminaire evaluation criteria emphasises the Energy performance by requiring manufacturers to provide verified luminous efficacy data, measured in lumens per watt (lm/W). This ensures greater transparency in energy efficiency claims and supports the adoption of high-performance, low-energy lighting solutions.

5 The evaluation criteria also prioritises lighting quality, assessed using the Colour Rendering Index (CRI), to ensure accurate and natural colour rendering, thereby improving visual clarity and reducing eye fatigue and general discomfort of the occupants.

6 Other requirements in the criteria address overall electrical performance, product reliability, and colour stability. These include the minimum power factor performance, compliance with Electromagnetic Compatibility (EMC) standards, and demonstrated LED chip lumen maintenance. To further support visual consistency over time, LED Luminaires may optionally demonstrate compliance with the product colour maintenance requirement which requires colour stability with a MacAdam ellipse of less than 2-step.

7 This criteria seeks to ensure the certification of energy-efficient LED Luminaires that minimise energy consumption while delivering high visual quality to support occupants' health and well-being.

Implementation Timeline

8 The new LED Luminaire criteria is open for applications with immediate effect.

For Clarification

9 We would appreciate if you could convey the contents of this circular to relevant members of your organisation. For any queries concerning this circular, please do not hesitate to contact SGBC at certification@sgbc.sg.