Appendix 2: Product Specification

GIDI: Clean Tech – Commercial Lighting Programme

Products must meet the following specifications to be eligible for the programme:

Area	Attribute	Minimum Requirements	Test method/calculation
Minimum luminous efficacy and standby power	Luminous efficacy	Tier 1 in the 4E: Solid State Lighting Annex: Quality and Performance Requirements	 Regulation EU regulation 2019/2020 Annex II
	Network and Non-network Standby power	Power <= 0.2 W	• IEC 63103
Product performance	Colour rendering	Must not be less than 80, unless outdoor lights then must not be less than 70	• CIE S 025/E:2015 Clause 7
	Correlated colour temperature (CCT)	Tier 1 in the 4E: Solid State Lighting Annex: Quality and Performance Requirements	• CIE S 025/E:2015 Clause 7
	Displacement factor	Power <= 2 W: No limit 2 W < Power <= 10 W: No less than 0.5 Power > 10 W: No less than 0.9	 IEC 62612:2023+AMD1:2015+ AMD2:2018 CSV Annex C with reference to IEC 61000-3-2 and AS/NZS 61000.4.7
	Lumen maintenance factor at 6000 h	Tier 1 in the 4E: Solid State Lighting Annex: Quality and Performance Requirements	 AS/NZS 5341:2021 Clause 6.2 Combined luminous flux maintenance and endurance test, or Regulation (EU) 2019/2020 Annex V
Longevity	Survival factor	90% survival rate (9 of 10)	 AS/NZS 5341:2021 Clause 6.2, or Regulation EU regulation 2019/2015 Annex V
	Minimum lifetime	<u>Tier 1 in the 4E: Solid State Lighting</u> <u>Annex: Quality and Performance</u> <u>Requirements</u>	Means the time in hours between the start of its use and the time at which, for 50% of a population of LED lamps of that model, the light output has degraded to a value below 70% of the initial luminous flux

	Minimum warranty	5 year	Manufacturer's declaration
Photobiological	Flicker	P_{st}^{LM} must be ≤ 1.0 at full load	• IEC TR 61547-1
	Stroboscopic effect for mains LED lamp	The SVM must be ≤ 0.4 at full-load, but there are no requirements for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI< 80.	• IEC TR 63158