



Warranties and LED Stated Life

CSC LED offers warranties on its LED products including a 10-year warranty for outdoor fixtures and a 5-year warranty for indoor fixtures (7-year warranty for panel lights).

To understand how we determine how long we will warranty a product, please note that the number one cause of failure in any LED light is the driver. The driver is the engine that powers the LED chips.

Our experience has shown that good quality drivers, when paired with quality light engines and housings, will operate reliably for 50,000 hours.

Outdoor LED Fixtures: 10-Year Warranty

Outdoor lights are burned an average of 12 hrs per day or approximately 4,380 hours per year.

$$4,380 \text{ Hours} \times 10 \text{ Years} = 43,800 \text{ Hours}$$

This is well within the industry comfort zone for reliable life expectancy and CSC LED is confident in our 10-year warranty for outdoor products.

Indoor LED Fixtures: 5-Year Warranty

There are many indoor applications, a manufacturing plant for example, that may burn their indoor fixtures 24/6 (7,508 hrs per year) or even 24/7 (8,760 hrs per year). It is impossible for us to know for sure and site conditions are subject to change after purchasing and installing our lights. For example: a third shift may be added at a manufacturing plant.

In a 24/7 indoor application, the lights over a 10-year period will operate for 87,600 hours. This exceeds the industry comfort zone for reliable operation and hence why our indoor products are warranted for 5 years.

$$8,760 \text{ Hours} \times 5 \text{ Years} = 43,800 \text{ Hours}$$

This is not to say your fixture will fail in 5 years plus a day; however, reliability may slowly decline after this point.

LM80 and TM-21 Testing

All our LED chips are LM80 tests for light degradation. That data is used to extrapolate L70 life of the fixture using the TM-21-11 method. In short, the fixture is burned in a controlled environment, for a defined length of time, while measuring the junction temperature of the LED chips(s). This is the only accepted method to determine L70 life. TM-21 section 5.2.5 states the famed 6X rule. You can only project L70 life 6x the test period.

At CSC LED, we test for 10,000 hours (approx 1 year). This allows us to use the 6x rule: (10,000 x 6 = 60,000 hrs).

We can reliably state that any fixture with this test, has an L70 of at least 50,000 hours.

Dubious Performance Claims do a Diservice to the Industry

Alex Baker authored an excellent paper for the Illuminating Engineers Society on dubious performance claims. We encourage everyone in the lighting industry to learn more at: <https://www.ies.org/lda/your-products-are-overrated/>

Misleading Warranty and Performance Claims

Unlike some of our competitors, CSC LED does not offer 10-year warranties on indoor LED products because, simply put, it is not something that can be guaranteed or warranted.

CSC LED does not make dubious claims when it comes to L70 life of products. While we are highly confident our products will exceed our stated life (L70) claims. Claiming any more would require years of testing to credibly prove and the components would most likely be obsolete and superseded by that time.

Before purchasing another brand's fixture based on the warranty offered, do the math and choose CSC LED.

QUESTIONS? PLEASE CONTACT:

Brandon Grigg

Projects Manager, b.grigg@csc-led.com

ON HEAD OFFICE: 8 - 540 Jamieson Parkway, Cambridge, ON, N3C 0G5

AB WAREHOUSE: 13 - 2355 52 Ave SE, Calgary, AB, T2C 4X7

BC OFFICE: 1140-2375 Fremont Street, Port Coquitlam, BC, V3B 0N9



www.csc-led.com | info@csc-led.com