



LM-80 Testing Results with TM-21

Aug. 2014 *Version 4*

Description & Content

LM-80 Testing Results with TM-21

Description

Based on Lextar's LED components, this document provides the results of IES LM-80-08 testing & IES TM-21 projecting.

Note: The data is for reference only and not a complete LM-80 / TM-21 report.

Contents

Low/Middle Power LED

No.	Model Name
1.	PT30A02
2.	PC30H08
3.	PC56H01
4	PC56H07

High Power LED

No.	Model Name
1.	PC33H01
2.	PC55H01

High Voltage LED

No.	Model Name
1.	PC33H05

COB LED

No.	Model Name
1.	PB15H04

Disclaimer:

This document is provided for informational purposes only for the specified test model and is not a warranty or a specification. This file is to be used exclusively for submission to customer for evaluation and assessment the LED light source performance. The information in this document is subject to change without notice.

Low/Middle Power LED

LM-80 Testing Results with TM-21

PT30A02

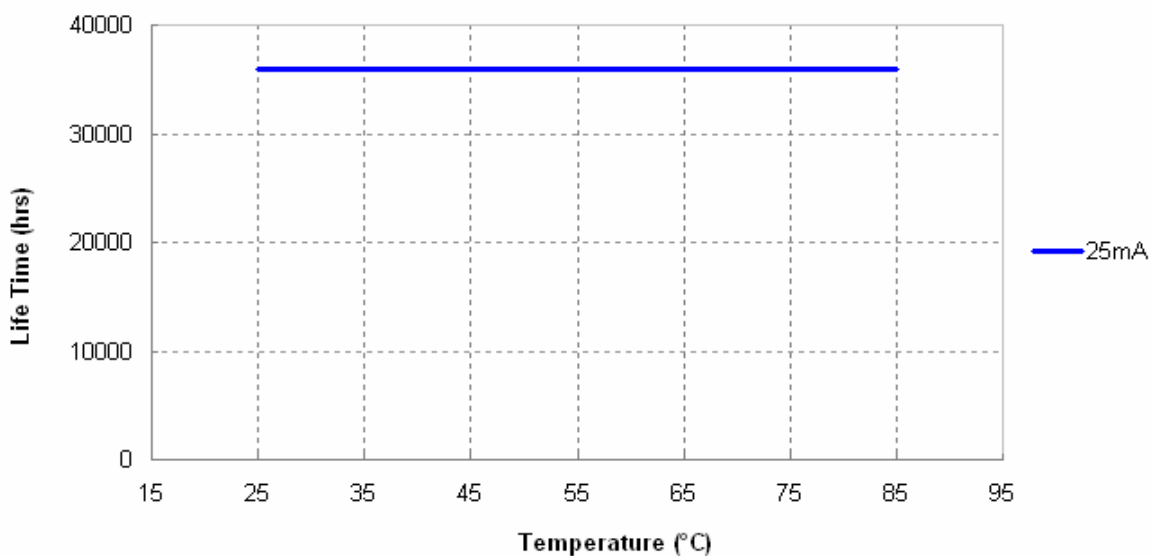
Revision 1.0 (Aug. 23, 2012)

Sample size: 25pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
25mA	25°C	6000hrs	99.1%	0.0017	L70(6K) 74,000hrs L70(6K) >36,000hrs
25mA	55°C	6000hrs	98.6%	0.0017	L70(6K) 59,000hrs L70(6K) >36,000hrs
25mA	85°C	6000hrs	96.5%	0.0019	L70(6K) 36000hrs L70(6K) >36,000hrs

L70 Temperature Interpolation Graph



PC30H08

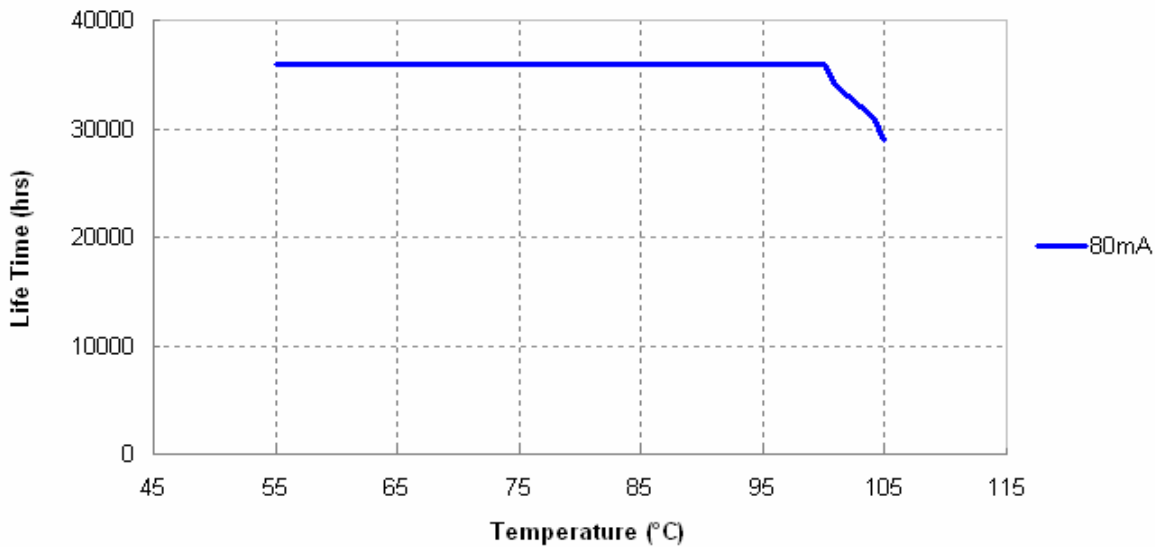
Revision 1.0 (Oct. 22, 2013)

Sample size: 25pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
80mA	55°C	6000hrs	97.0%	0.0015	L70(6K) 54,000hrs L70(6K) >36,000hrs
80mA	85°C	6000hrs	97.1%	0.0013	L70(6K) 64,000hrs L70(6K) >36,000hrs
80mA	105°C	6000hrs	92.9%	0.0022	L70(6K) 29,000hrs L70(6K) 29,000hrs

L70 Temperature Interpolation Graph



PC56H01

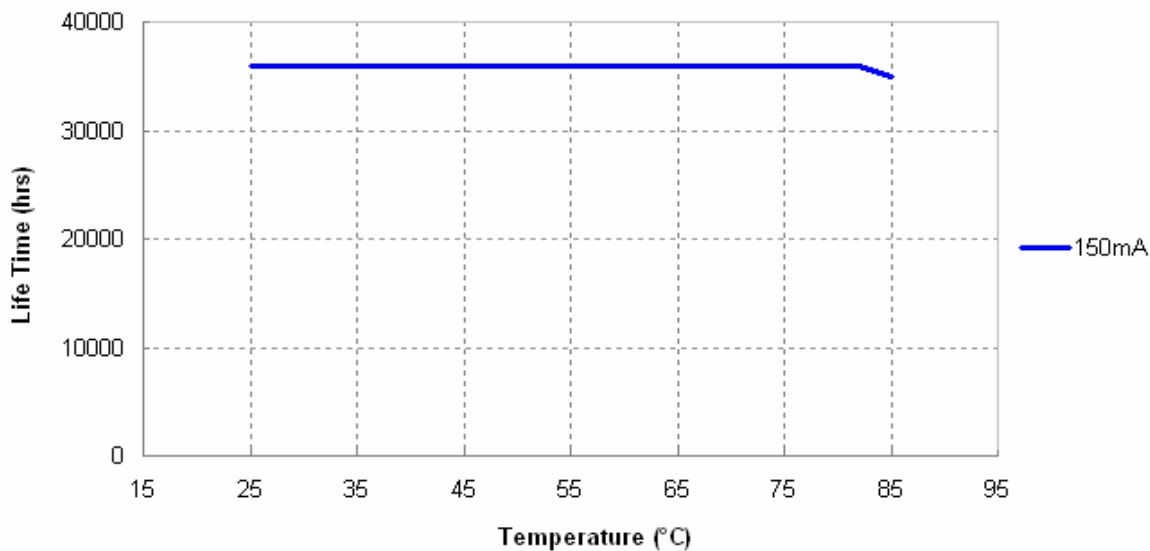
Revision 1.0 (Mar. 08, 2013)

Sample size: 25pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
150mA	25°C	6000hrs	98.3%	0.0008	L70(6K) 60,000hrs L70(6K) >36,000hrs
150mA	55°C	6000hrs	97.7%	0.0012	L70(6K) 52,000hrs L70(6K) >36,000hrs
150mA	85°C	6000hrs	95.6%	0.0019	L70(6K) 35,000hrs L70(6K) 35,000hrs

L70 Temperature Interpolation Graph



PC56H07

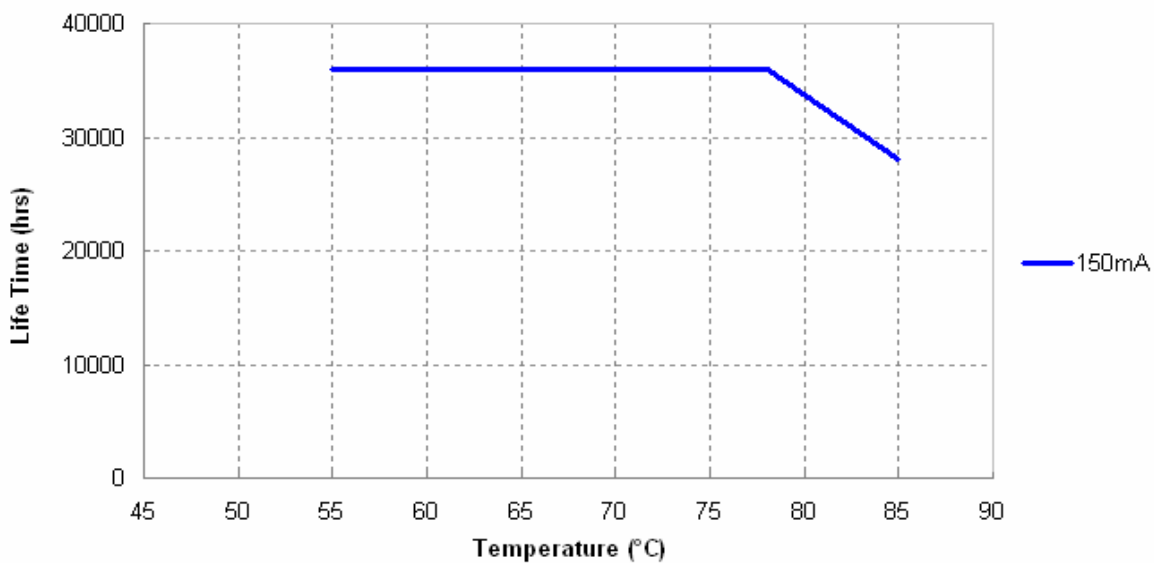
Revision 1.0 (Aug. 7, 2014)

Sample size: 30pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
150mA	55°C	6000hrs	98.97%	0.0010	L70(6K) 86,000 L70(6K) >36,000hrs
150mA	85°C	6000hrs	93.46%	0.0023	L70(6K) 27,682hrs L70(6K) 27,682hrs

L70 Temperature Interpolation Graph



High Power LED

LM-80 Testing Results with TM-21

■ PC33H01

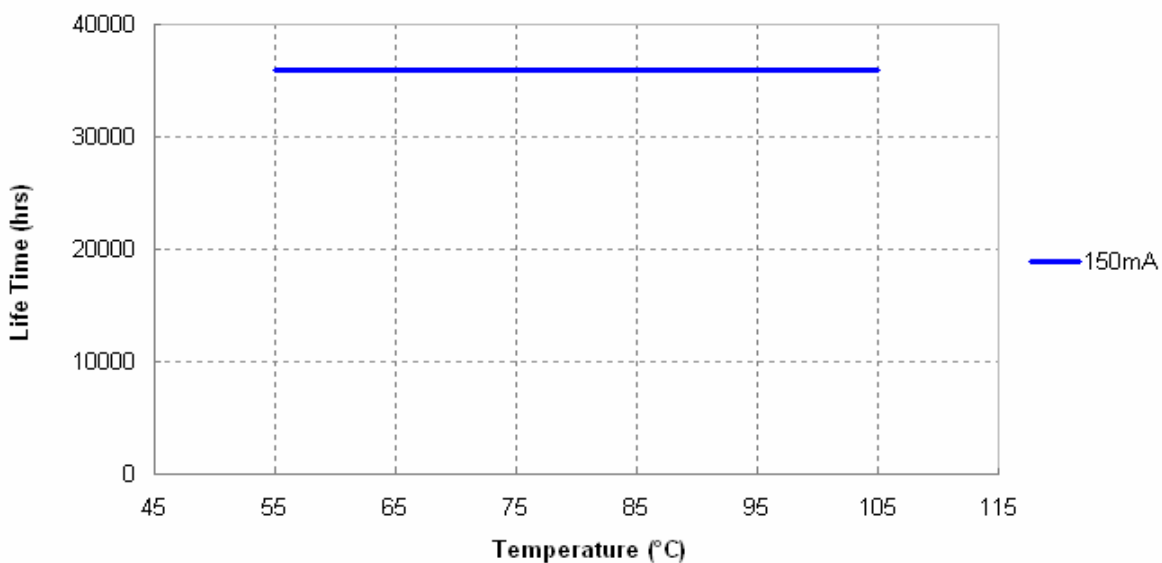
Revision 1.0 (Oct. 25, 2013)

Sample size: 25pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
150mA	55°C	6000hrs	99.3%	0.0011	L70(6K) 121,000hrs L70(6K) >36,000hrs
150mA	85°C	6000hrs	97.7%	0.0017	L70(6K) 70,000hrs L70(6K) >36,000hrs
150mA	105°C	6000hrs	95.9%	0.0020	L70(6K) 44,000hrs L70(6K) >36,000hrs

L70 Temperature Interpolation Graph



PC55H01

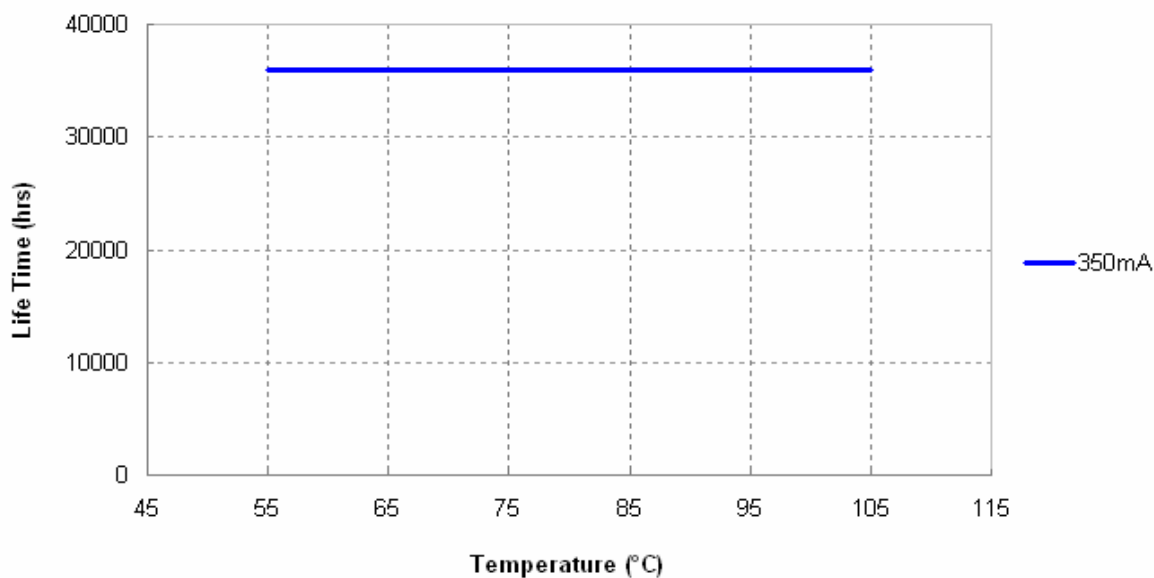
Revision 1.0 (Mar. 28, 2014)

Sample size: 30pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
350mA	55°C	6000hrs	99.00%	0.00113	L70(6K) 659,617hrs L70(6K) >36,000hrs
350mA	85°C	6000hrs	98.61%	0.00122	L70(6K) 359,844hrs L70(6K) >36,000hrs
350mA	105°C	6000hrs	96.95%	0.00081	L70(6K) 191,169hrs L70(6K) >36,000hrs

L70 Temperature Interpolation Graph



High Voltage LED

LM-80 Testing Results with TM-21

PC33H05

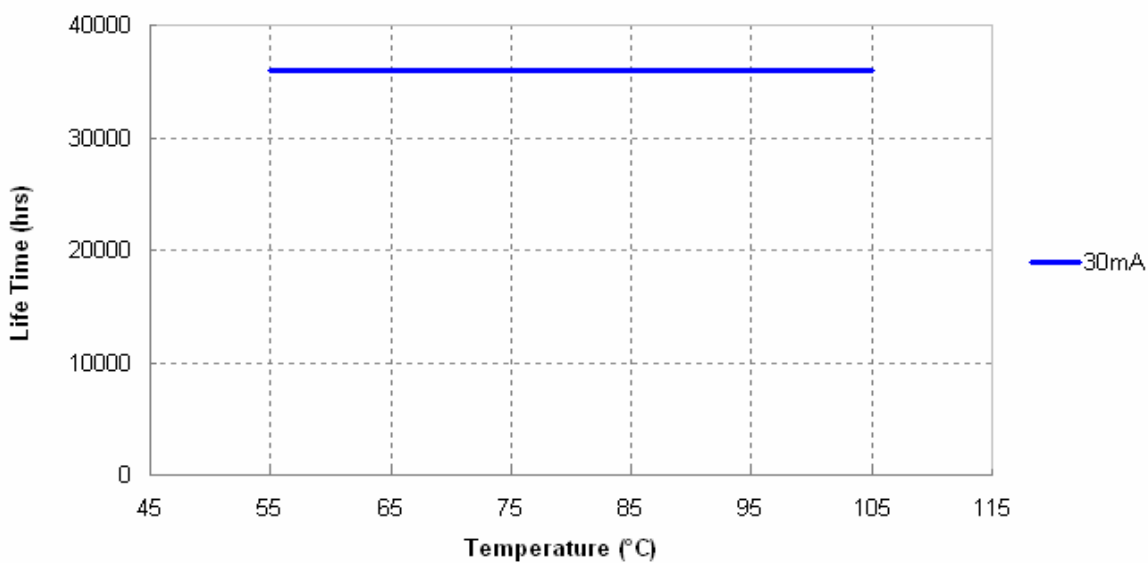
Revision 1.0 (Jul. 8, 2014)

Sample size: 25pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
30mA	55°C	6000hrs	96.79%	0.0011	L70(6K) 60,000hrs L70(6K) >36,000hrs
30mA	85°C	6000hrs	95.80%	0.0017	L70(6K) 47,000hrs L70(6K) >36,000hrs
30mA	105°C	6000hrs	94.84%	0.0010	L70(6K) 41,000hrs L70(6K) >36,000hrs

L70 Temperature Interpolation Graph



COB LED

LM-80 Testing Results with TM-21

■ PB15H04

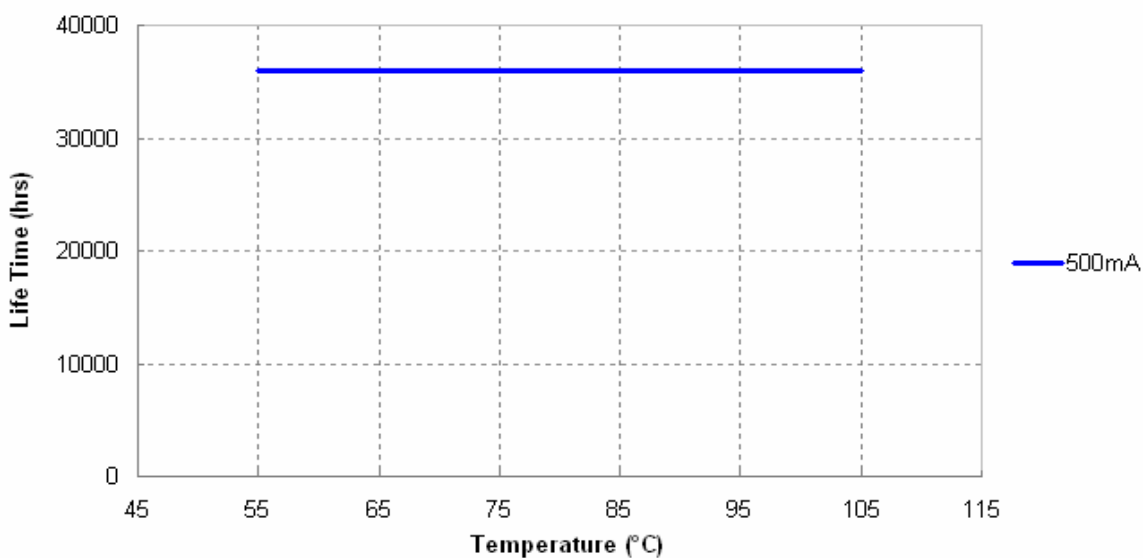
Revision 1.0 (Apr.23, 2014)

Sample size: 25pcs

Failures occurred during testing: 0pcs

Driving Current [I _F]	Test Condition	Test Duration	Test Result		TM-21 Lifetime [Calculated/ Reported]
			Lumen Maintenance	Chromaticity Shift [Δu' v']	
500mA	55°C	6000hrs	97.5%	0.0004	L70(6K) 83,000hrs L70(6K) >36,000hrs
500mA	85°C	6000hrs	96.3%	0.0008	L70(6K) 52,000hrs L70(6K) >36,000hrs
500mA	105°C	6000hrs	95.9%	0.0008	L70(6K) 44,000hrs L70(6K) >36,000hrs

L70 Temperature Interpolation Graph



Revision

LM-80 Testing Results with TM-21

Date	Contents	Writer
2014.2.24	Version1	Ching
2014.4.21	Version2- Add PB15H04	Ching
2014.5.27	Version3- Add PC55H01	Ching
2014.8.25	Version4- Add PC33H05 & PC56H07	Ching

Smart Lighting *Amazing Life*

Lextar Electronics Corp. is the leading LED (Light Emitting Diode) maker integrating upper stream epitaxial, middle stream chip, and downstream package, SMT and LED lighting applications. Founded in May, 2008, Lextar is a subsidiary of AU Optronics, the leading TFT-LCD and solar PV manufacturer. Lextar's product applications include lighting and LCD backlight. Lextar's manufacturing sites include Hsinchu and Chunan in Taiwan, and Suzhou in China. The company turnover in 2010 is 266 million USD.