



# XLAMP XP-L2 WHITE LONG TERM TESTING SUMMARY

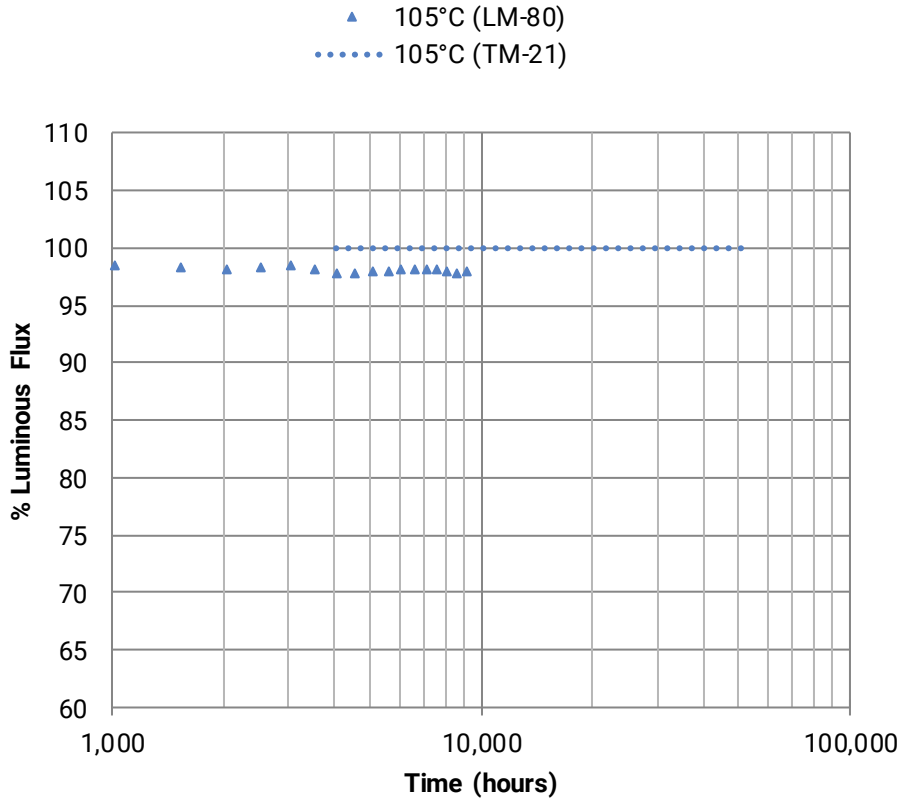
March 6, 2018

# XLamp XP-L2 LM-80 Testing Summary

CCT	Current (A)	Tsp (°C)	Reported Lifetime (hrs)	
			L70	L90
3000K	1.050	105	>54.4k	>54.4k
	1.500	85	>57.5k	>57.5k
	1.500	105	>69.6k	40.9k
	2.100	85	>75.6k	61.9k
	2.100	105	>60.5k	55.6k
	3.000	85	>60.5k	33.1k



# XLamp XP-L2 White TM-21 Lifetime



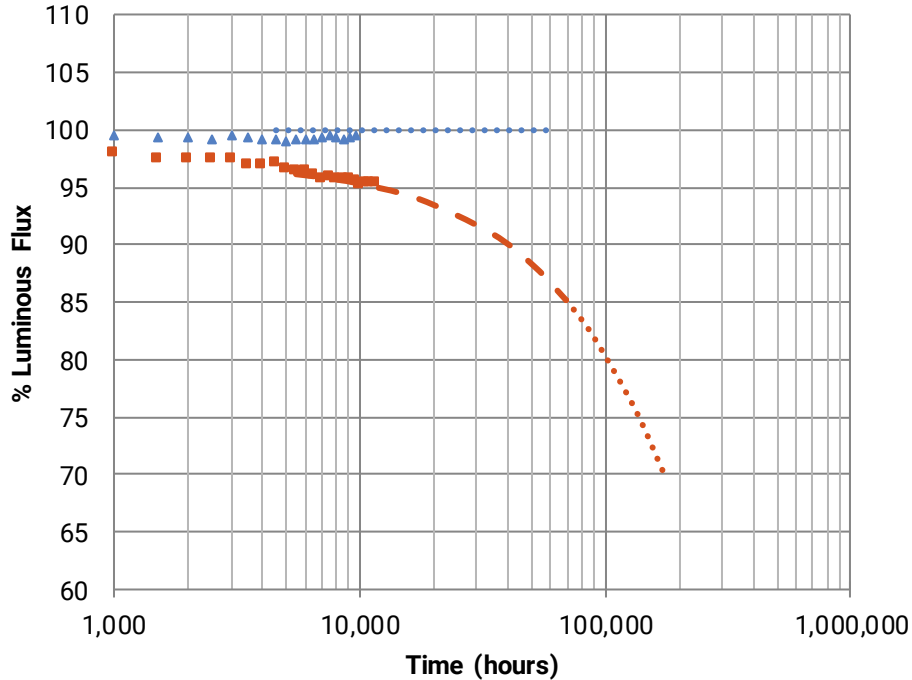
Current	1050 mA
Ta/Tsp	105°C
$\alpha$	<i>-2.249E-07</i>
$\beta$	0.9776
Duration	9,072 hrs
Calculated L90	$\alpha < 0$
Calculated L80	$\alpha < 0$
Calculated L70	$\alpha < 0$
Reported L90	> 54,400 hrs
Reported L80	> 54,400 hrs
Reported L70	> 54,400 hrs

## Notes:

- These extrapolations are for informational purposes only and are not a warranty or a specification.
- Extrapolated lifetimes are subject to change without notice.

# XLamp XP-L2 White TM-21 Lifetime

▲ 85°C (LM-80)    ■ 105°C (LM-80)  
●●●● 85°C (TM-21)    - - - 105°C (TM-21)



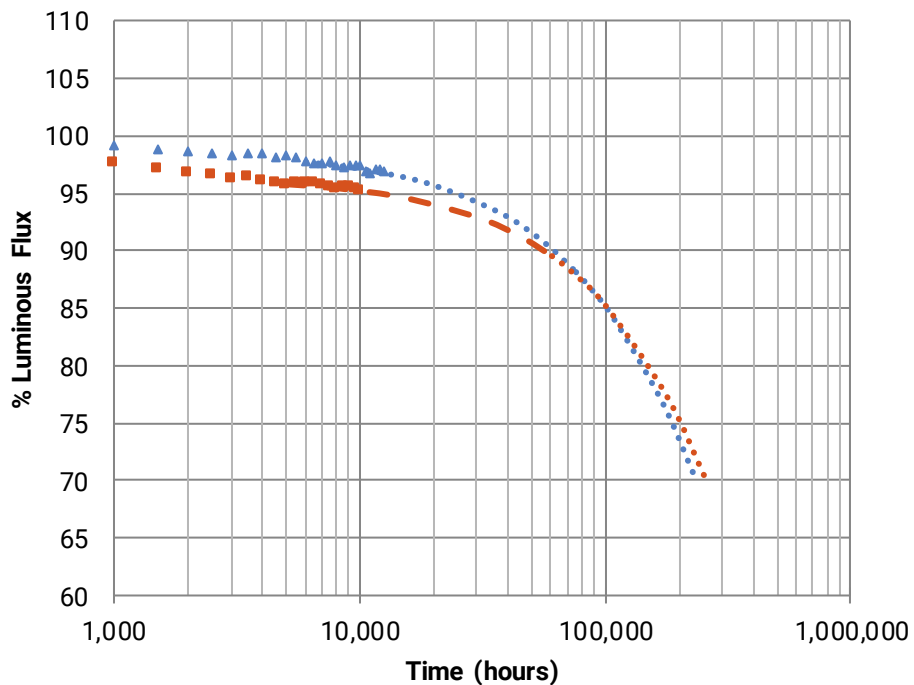
Current	1500 mA	
Ta/Tsp	85°C	105°C
$\alpha$	<i>-5.816E-07</i>	1.880E-06
$\beta$	0.9880	0.9719
Duration	9,576 hrs	11,592 hrs
Calculated L90	$\alpha < 0$	40,900 hrs
Calculated L80	$\alpha < 0$	104,000 hrs
Calculated L70	$\alpha < 0$	175,000 hrs
Reported L90	<b>&gt; 57,500 hrs</b>	<b>40,900 hrs</b>
Reported L80	<b>&gt; 57,500 hrs</b>	<b>&gt; 69,600 hrs</b>
Reported L70	<b>&gt; 57,500 hrs</b>	<b>&gt; 69,600 hrs</b>

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# XLamp XP-L2 White TM-21 Lifetime

▲ 85°C (LM-80)    ■ 105°C (LM-80)  
●●●● 85°C (TM-21)    - - - - 105°C (TM-21)

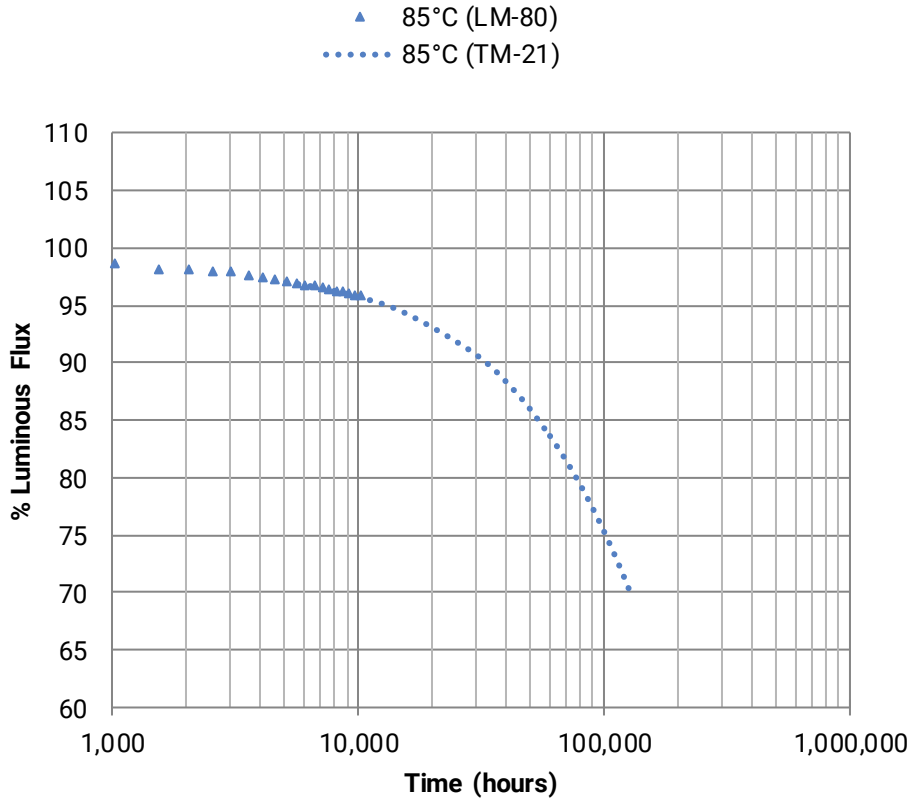


Current	2100 mA	
Ta/Tsp	85°C	105°C
$\alpha$	1.473E-06	1.237E-06
$\beta$	0.9860	0.9641
Duration	12,600 hrs	10,080 hrs
Calculated L90	61,900 hrs	55,600 hrs
Calculated L80	142,000 hrs	151,000 hrs
Calculated L70	>227,000 hrs	>181,000 hrs
Reported L90	<b>61,900 hrs</b>	<b>55,600 hrs</b>
Reported L80	<b>&gt; 75,600 hrs</b>	<b>&gt; 60,500 hrs</b>
Reported L70	<b>&gt; 75,600 hrs</b>	<b>&gt; 60,500 hrs</b>

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# XLamp XP-L2 White TM-21 Lifetime



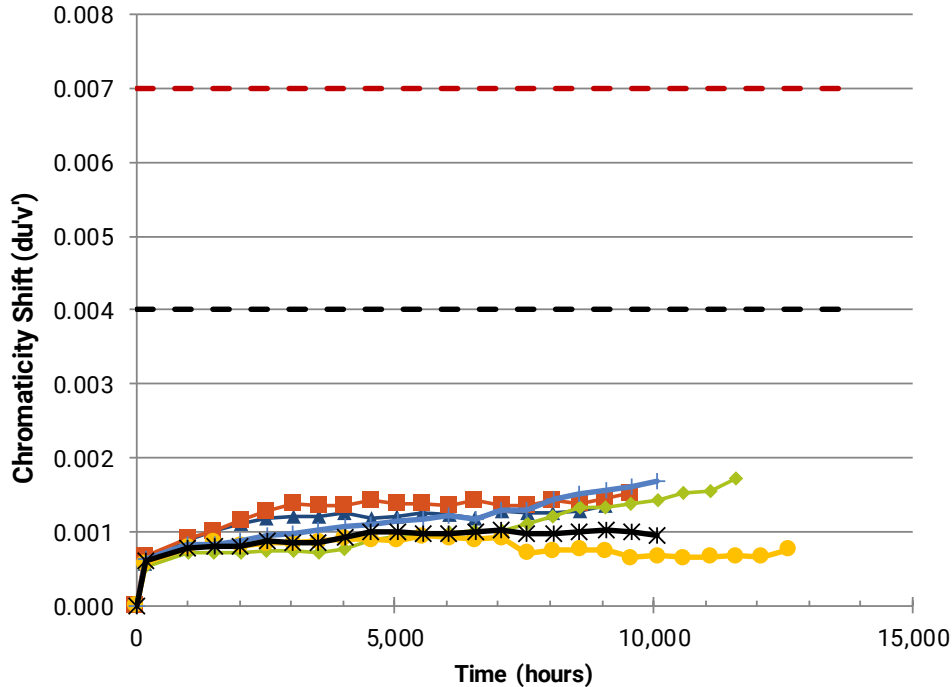
Current	3000 mA
Ta/Tsp	85°C
$\alpha$	2.681E-06
$\beta$	0.9836
Duration	10,080 hrs
Calculated L90	33,100 hrs
Calculated L80	77,100 hrs
Calculated L70	127,000 hrs
Reported L90	<b>33,100 hrs</b>
Reported L80	<b>&gt; 60,500 hrs</b>
Reported L70	<b>&gt; 60,500 hrs</b>

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# XLamp XP-L2 White LM-80 Color Shift

XLamp XP-L2 White:  $I_f=1.050A$ ,  $T_{sp}=105^\circ C$       XLamp XP-L2 White:  $I_f=1.500A$ ,  $T_{sp}=85^\circ C$   
XLamp XP-L2 White:  $I_f=1.500A$ ,  $T_{sp}=105^\circ C$       XLamp XP-L2 White:  $I_f=2.100A$ ,  $T_{sp}=85^\circ C$   
XLamp XP-L2 White:  $I_f=2.100A$ ,  $T_{sp}=105^\circ C$       XLamp XP-L2 White:  $I_f=3.000A$ ,  $T_{sp}=85^\circ C$



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