

TM21 Projections

LH351C

Underlying LM80 Report

CRI of tested samples	CRI70		
DUT drive current used in the test (mA)	700		
Test duration (hrs)	17,000		
Test duration used for projection	8000 - 17000		
Tested Tc (°C)	55	85	105
α(alpha)	1.230E-07	7.389E-08	1.606E-07
B	0.986716	0.984709	0.982971
Calculated L70(17k)	2,791,000	4,618,000	2,114,000
Reported L70(17k)	> 102,000	> 102,000	> 102,000
XLMF [%]	>96	>96	>96

Reported Values

mA	Ts	Tj	L70B50	L70B10	L80B50	L80B10	L90B50	L90B10
700mA	55°C	61°C	>102,000	>102,000	>102,000	>102,000	>102,000	>102,000
700mA	65°C	71°C	>102,000	>102,000	>102,000	>102,000	>102,000	>102,000
700mA	75°C	81°C	>102,000	>102,000	>102,000	>102,000	>102,000	>102,000
700mA	85°C	91°C	>102,000	>102,000	>102,000	>102,000	>102,000	100,000
700mA	95°C	101°C	>102,000	>102,000	>102,000	>102,000	>102,000	>102,000
700mA	105°C	111°C	>102,000	>102,000	>102,000	>102,000	>102,000	>102,000

Calculated Values

mA	Ts	Tj	L70B50	L70B10	L80B50	L80B10	L90B50	L90B10
700mA	55°C	61°C	2,777,000	627,000	1,699,000	384,000	749,000	170,000
700mA	65°C	71°C	2,763,000	525,000	1,690,000	322,000	743,000	143,000
700mA	75°C	81°C	2,750,000	439,000	1,681,000	270,000	738,000	120,000
700mA	85°C	91°C	2,737,000	368,000	1,672,000	226,000	732,000	100,000
700mA	95°C	101°C	2,129,000	399,000	1,297,000	244,000	564,000	108,000
700mA	105°C	111°C	1,655,000	433,000	1,006,000	265,000	434,000	116,000

LM80 Test Input for TM21 Calculator

Description of LED Light Source Tested (manufacturer, model, catalog number)	
※ These calculation results are based on original LM80 data; LH351C, 700mA 17000hrs test duration (CRI70)	

LM-80 Testing Details	
Test duration (hours):	17,000
Tested drive current (mA):	700
Tested case temperature 1 (Tc, °C):	55
Tested case temperature 2 (Tc, °C):	85
Tested case temperature 3 (Tc, °C):	105

Tested Case Temperature 1	
Time (hours)	Lumen Main-tenance (%)
8,000	98.60%
9,000	98.60%
10,000	98.50%
11,000	98.60%
12,000	98.50%
13,000	98.40%
14,000	98.50%
15,000	98.50%
16,000	
17,000	

Tested Case Temperature 2	
Time (hours)	Lumen Main-tenance (%)
8,000	98.50%
9,000	98.40%
10,000	98.40%
11,000	98.30%
12,000	98.40%
13,000	98.30%
14,000	98.40%
15,000	98.30%
16,000	
17,000	

Tested Case Temperature 3	
Time (hours)	Lumen Main-tenance (%)
8,000	98.20%
9,000	98.20%
10,000	98.10%
11,000	98.10%
12,000	98.10%
13,000	98.00%
14,000	98.10%
15,000	98.10%
16,000	
17,000	

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XLMF [%]	>96	>96	>96

Graphic TM21 Projections

