

DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

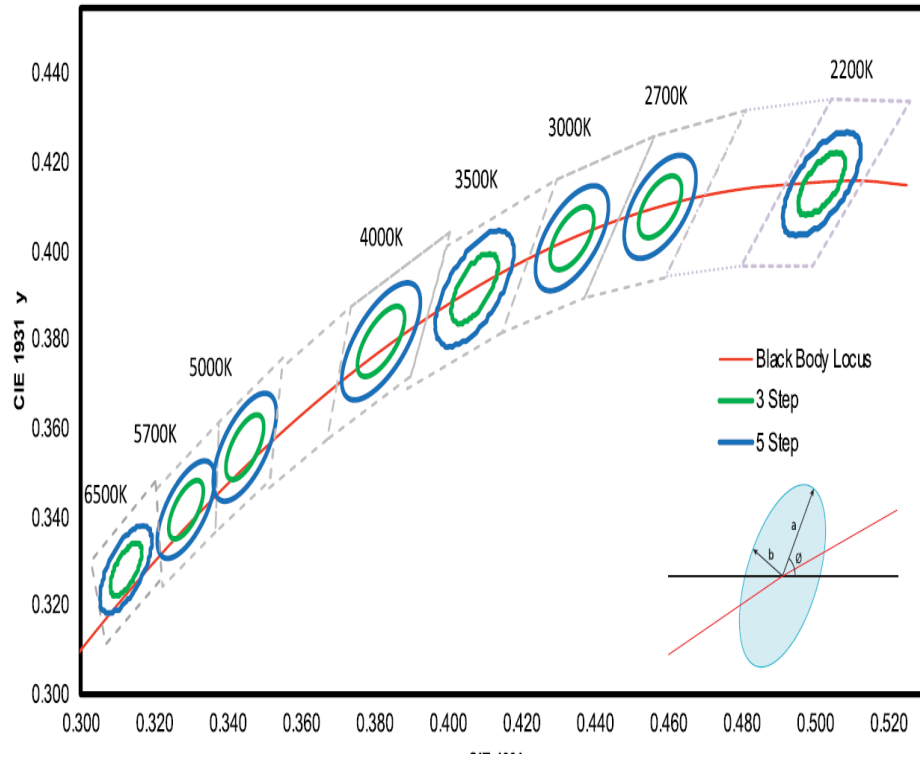
Common Characteristic [@Tj : 85°C] ;			
Module Code	X-MS82490LML4070-5050-96		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +105	Parallel	4
Storage Temperature (°C)	-40 ~ +105	Series	24
Thermal Conductivity (W/m-K)	1,5	LED Quantity	96
LED 5050-HE			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	134	138	143
Module Operating Current (mA)	1400	2000	2800
Branch Operating Current (mA)	350	500	700
Module Power (W)	188	276	401
Module Light Output (lm)	34845	48111	65183
Module Efficiency (lm/W)	186	174	162
LED 5050-SQ			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	133	137	141
Module Operating Current (mA)	1400	2000	2800
Branch Operating Current (mA)	350	500	700
Module Power (W)	186	273	394
Module Light Output (lm)	34346	47288	63765
Module Efficiency (lm/W)	184	173	162

The table below shows how to Module Light Output changes depending on CCT (K)

LED	Lumen Output Multiplier							
	2200K (CRI 70)	2700K (CRI 70)	3000K (CRI 70)	3500K (CRI 70)	4000K (CRI 70)	5000K (CRI 70)	5700K (CRI 70)	6500K (CRI 70)
L150-40705006000H0	0,84	0,92	0,96	0,97	1,00	1,00	0,97	0,98
L150-40705006000S0	0,83	0,93	0,96	0,97	1,00	0,99	0,98	0,97

Relative luminous intensity versus CCT (K)

CCT AND BINNING INFORMATION



LIFE TIME

MODEL NUMBER: Lumileds 5050

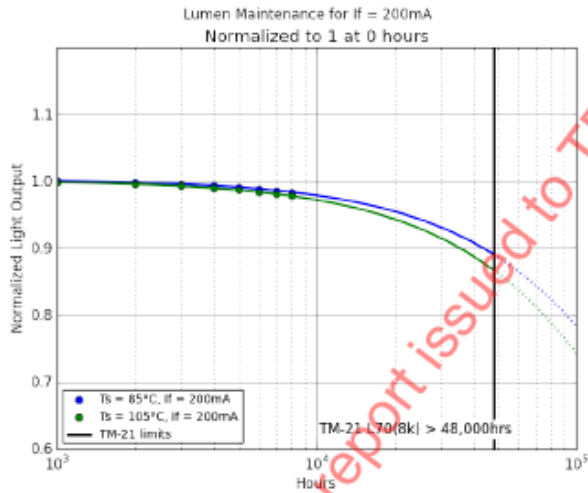
The TM-21 extrapolations are based on the IESNA TM-21-11 technical memorandum. The TM-21 lumen maintenance model is based on the flux data normalized to 1 at 0 hours and the use of an exponential model for flux (time):

Flux(time) = B exp[-alpha*time], where normally B ≡ 1, and alpha > 0.

An L70 extrapolation less than 0 means that the model predicts an increasing flux output with time, i.e. alpha < 0 (see graphs). Generally, this means that additional test time is needed to determine the long-term lumen maintenance behavior.

Normalized Flux Statistics for I_f = 200mA

	0hrs	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	alpha	B	L70	
Ts=Tair=105°C	median =	1.0000	0.9989	0.9963	0.9933	0.9896	0.9875	0.9845	0.9818	0.9781			
	average =	1.0000	0.9991	0.9960	0.9931	0.9900	0.9872	0.9842	0.9814	0.9782	3.0011e-06	1.0021	119,535
	st dev =	0.0000	0.0015	0.0018	0.0023	0.0025	0.0020	0.0019	0.0024	0.0023			TM-21 L70(Bk) > 48,000hrs
	min =	1.0000	0.9971	0.9920	0.9876	0.9859	0.9830	0.9802	0.9771	0.9743			
	max =	1.0000	1.0017	0.9983	0.9963	0.9941	0.9901	0.9870	0.9858	0.9818			
Ts=Tair=85°C	median =	1.0000	1.0009	0.9983	0.9964	0.9939	0.9922	0.9891	0.9868	0.9844			
	average =	1.0000	1.0010	0.9982	0.9963	0.9938	0.9918	0.9890	0.9867	0.9839	2.4787e-06	1.0039	145,449
	st dev =	0.0000	0.0013	0.0017	0.0016	0.0017	0.0020	0.0017	0.0021	0.0022			TM-21 L70(Bk) > 48,000hrs
	min =	1.0000	0.9986	0.9944	0.9932	0.9905	0.9881	0.9855	0.9821	0.9793			
	max =	1.0000	1.0030	1.0011	0.9989	0.9965	0.9949	0.9920	0.9917	0.9879			



Delta u'v' for I_f = 200mA

	0hrs	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	
Ts=Tair=105°C	median =	0.0000	0.0004	0.0010	0.0014	0.0016	0.0020	0.0022	0.0025	0.0027
	average =	0.0000	0.0005	0.0010	0.0014	0.0016	0.0019	0.0022	0.0025	0.0028
	st dev =	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	min =	0.0000	0.0002	0.0009	0.0013	0.0015	0.0018	0.0021	0.0022	0.0025
	max =	0.0000	0.0008	0.0011	0.0017	0.0018	0.0020	0.0025	0.0027	0.0030
Ts=Tair=85°C	median =	0.0000	0.0004	0.0007	0.0009	0.0011	0.0016	0.0018	0.0023	0.0025
	average =	0.0000	0.0004	0.0007	0.0009	0.0011	0.0016	0.0018	0.0023	0.0025
	st dev =	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0001
	min =	0.0000	0.0002	0.0005	0.0007	0.0009	0.0014	0.0016	0.0019	0.0023
	max =	0.0000	0.0007	0.0009	0.0010	0.0014	0.0017	0.0022	0.0025	0.0028

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