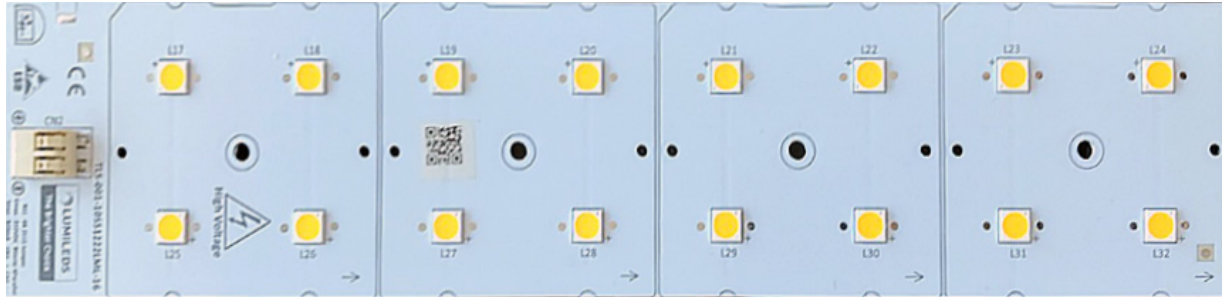




## PRODUCT PHOTO



## SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 5700°K
- Luminous flux range from 7724 lm to 11264 lm
- Efficacy of the module up to 159 lm/W
- CRI 70 is standart, CRI 80 and CRI 90 are available
- Outstanding system color tolerance MacAdam 3 over the full operating area
- This module is standard and can be connected as 4 parallel 4 series
- Simple installation
- Long life-time > 60,000 hours
- 5 years guarantee at specified conditions



For your orders please call us:

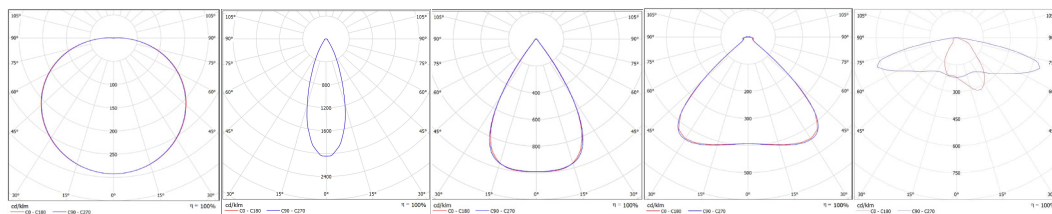
**+90 444 27 33**

## APPLICATIONS



Flood Lighting Low Bay Lighting High Bay Lighting Street Lighting Tunnel Lighting

## PHOTOMETRY



W/O LENS

TLS04NI-5050-30

TLS04NI-5050-60

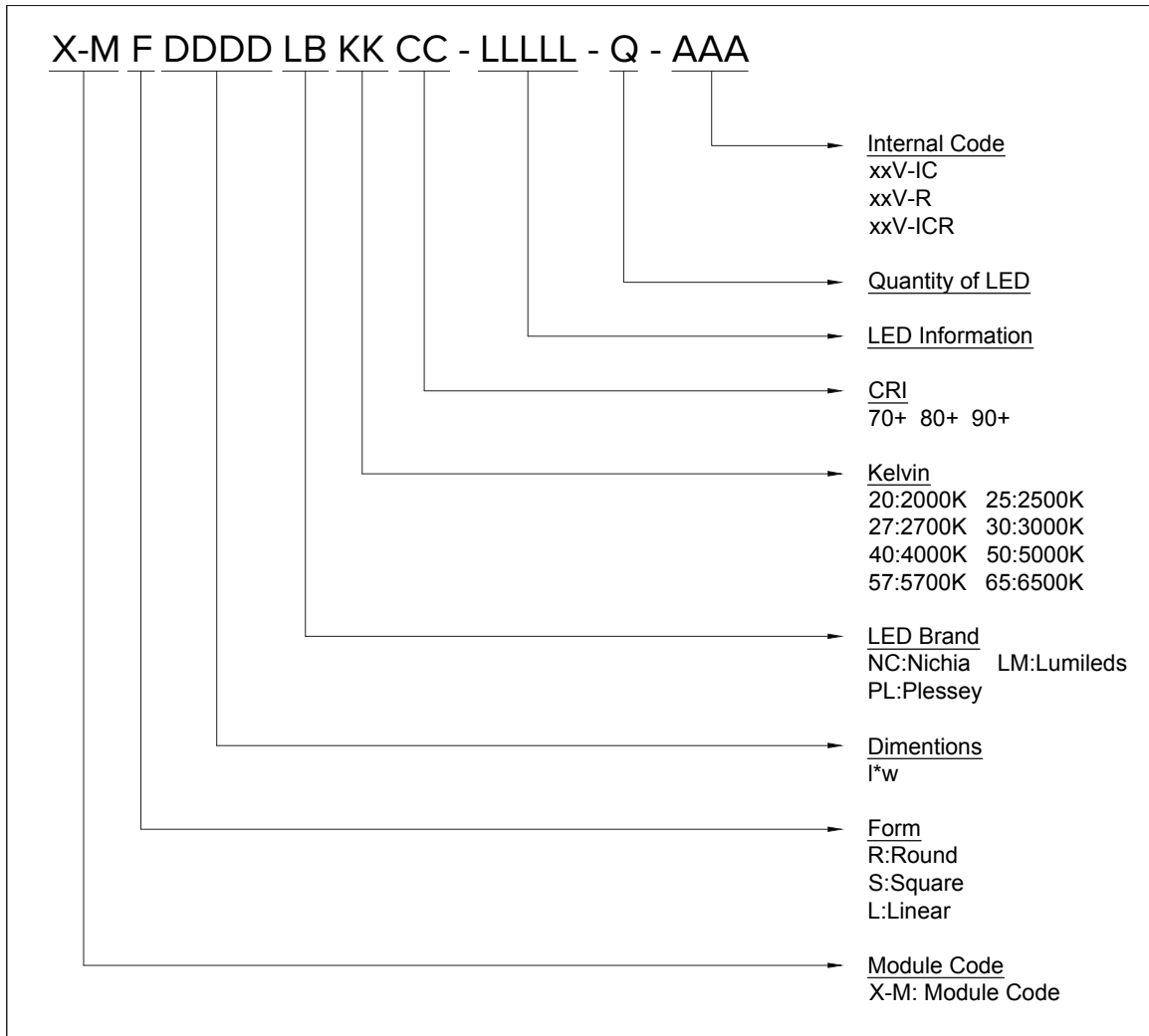
TLS04NI-5050-90

TLS04NI-5050-STL-ME3/ME4

## TECHNICAL DATA

Beam Angle	120°
Ambient temperature range	-25° ~ +55°C
Tc max	85°C
Max. DC forward current of Module	920 mA
Typical voltage of LED Module at max current	103 V
Max. Permissible current ripple of LED Driver	5%
Insulation test voltage	2kV
ESD classification	Class 1C
Risk group (EN 62471:2008)	1
Type of protection	RG1 : ILED < 100mA, RG2: ILED >100mA

## ORDERING INFORMATION



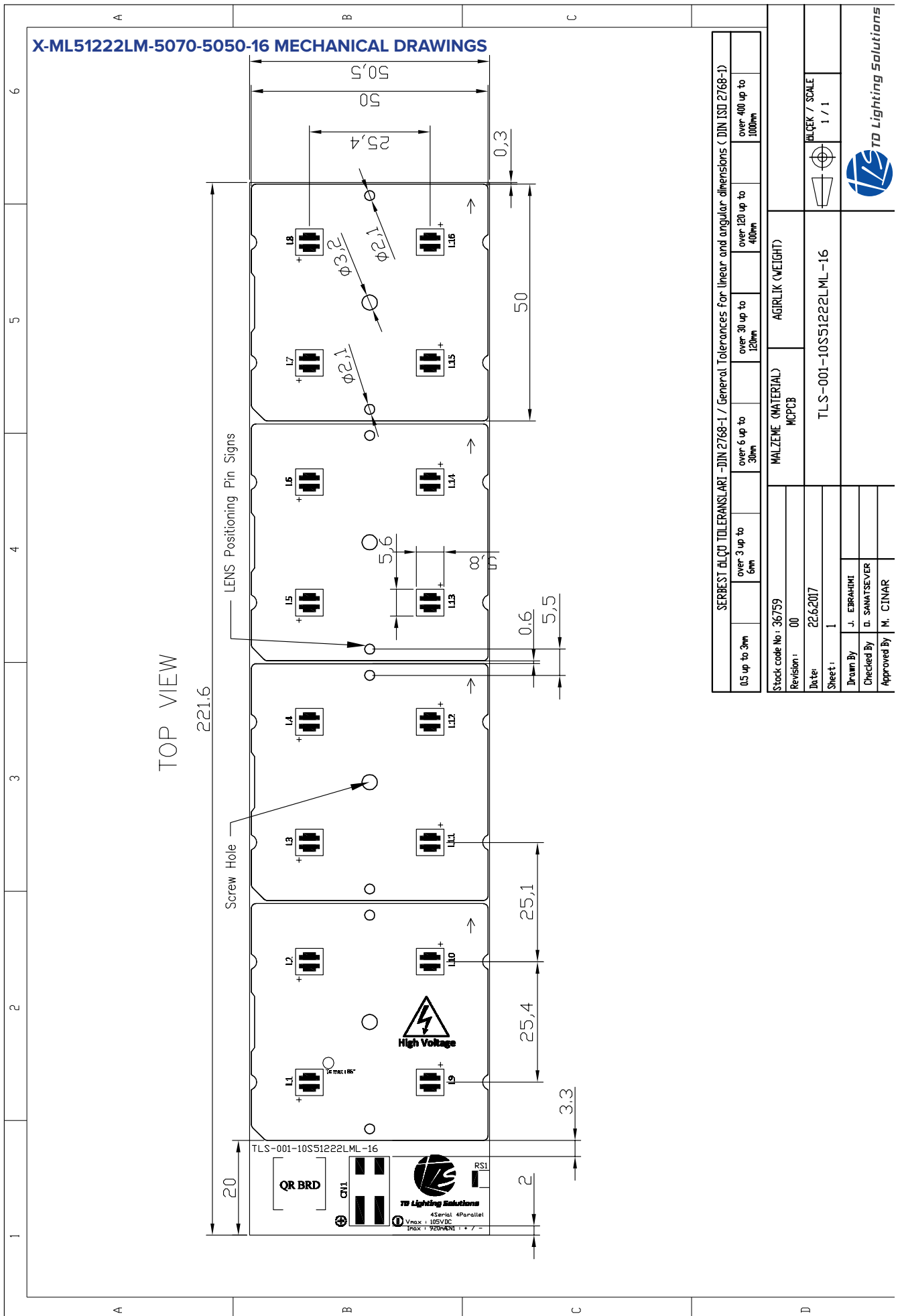
## DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

Common Characteristic [@Tj : 85°C]			
LED Brand & Type	X-ML51222LM-5070-5050-16		Electrical Connection
PCB Material	Aluminium		
Operating Temperature (°C)	-25°C ~ 100°C		Parallel 4
Storage Temperature (°C)	-25°C ~ 100°C		Series 4
Thermal Conductivity (W/m-K)	1,5		Total LED Quantity 16
LED	LM-5050-L150-5070		
Correlated Color Temperature (CCT)	5000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	97,2 V	100 V	103 V
Module Operating Current (mA)	500	700	900
Branch Operating Current (mA)	125	175	225
Module Power (W)	48,6	70	93
Module Light Output (lm)	7724,0	9733,0	11264,0
Module Efficiency (lm/W)	159	139	121

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

LED	Lumen Output Multiplier													
	2700°K (CRI 80)	2700°K (CRI 90)	3000°K (CRI 70)	3000°K (CRI 80)	3000°K (CRI 90)	4000°K (CRI 70)	4000°K (CRI 80)	4000°K (CRI 90)	5000°K (CRI 70)	5000°K (CRI 80)	5700°K (CRI 70)	6500°K (CRI 70)	6500°K (CRI 80)	6500°K (CRI 90)
L-MIL150-507050240000	0,820	0,620	0,933	0,847	0,750	1,000	0,933	0,760	1,000	0,930	1,000	X	X	X

Relative luminous intensity versus CCT (°K)

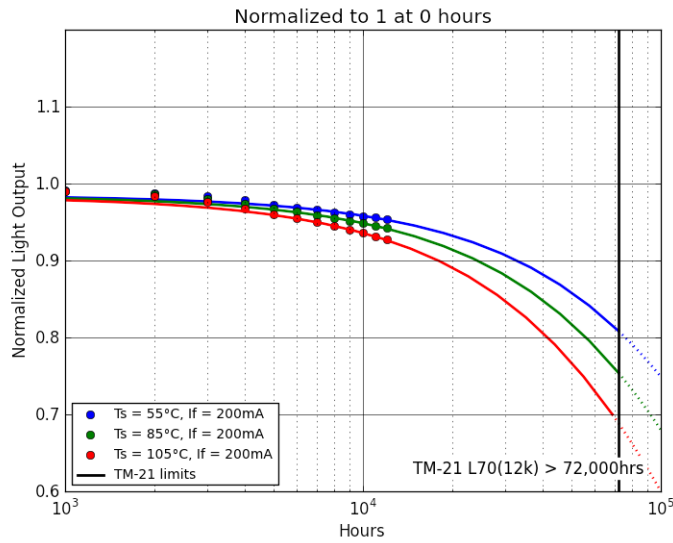




## LIFETIME PROJECTION & WORST CONDITION PERFORMANCE

### Normalized Flux Statistics for $I_f = 200\text{mA}$

	0hrs	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs	7000hrs	8000hrs	9000hrs	10000hrs	11000hrs	12000hrs	lpha	B	L70	
Ts=Tair=105°C	median =	1.000	0.990	0.984	0.977	0.967	0.960	0.953	0.949	0.945	0.940	0.937	0.931	0.928			
	average =1	.000	0.990	0.983	0.976	0.967	0.960	0.955	0.950	0.945	0.940	0.936	0.931	0.927	4.9404e-06	0.9832	68,763
	st dev =0	.000	0.002	0.003	0.003	0.004	0.005	0.005	0.005	0.005	0.005	0.006	0.006	0.006	TM-21 L70(12k) = 68,763hrs		
	min =1	.000	0.985	0.976	0.968	0.959	0.949	0.945	0.940	0.934	0.931	0.927	0.921	0.917			
	max =1	.000	0.994	0.987	0.982	0.974	0.972	0.968	0.965	0.959	0.952	0.949	0.943	0.939			
Ts=Tair=85°C	median =	1.000	0.989	0.985	0.981	0.974	0.967	0.964	0.960	0.957	0.954	0.951	0.947	0.944			
	average =1	.000	0.990	0.986	0.981	0.973	0.967	0.963	0.959	0.955	0.951	0.948	0.945	0.942	3.6972e-06	0.9843	92,180
	st dev =0	.000	0.003	0.003	0.004	0.005	0.006	0.007	0.007	0.007	0.008	0.008	0.008	0.008	TM-21 L70(12k) > 72,000hrs		
	min =1	.000	0.986	0.979	0.973	0.965	0.957	0.951	0.947	0.943	0.939	0.936	0.933	0.930			
	max =1	.000	0.998	0.993	0.992	0.985	0.980	0.976	0.971	0.967	0.964	0.961	0.959	0.957			
Ts=Tair=55°C	median =	1.000	0.992	0.988	0.984	0.978	0.972	0.969	0.966	0.964	0.960	0.958	0.956	0.954			
	average =1	.000	0.992	0.988	0.984	0.979	0.973	0.969	0.966	0.963	0.960	0.958	0.956	0.953	2.7367e-06	0.9847	124,709
	st dev =0	.000	0.002	0.003	0.003	0.005	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.005	TM-21 L70(12k) > 72,000hrs		
	min =1	.000	0.988	0.982	0.978	0.968	0.963	0.961	0.957	0.954	0.950	0.949	0.946	0.943			
	max =1	.000	0.998	0.993	0.991	0.988	0.981	0.977	0.976	0.972	0.968	0.967	0.965	0.964			



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