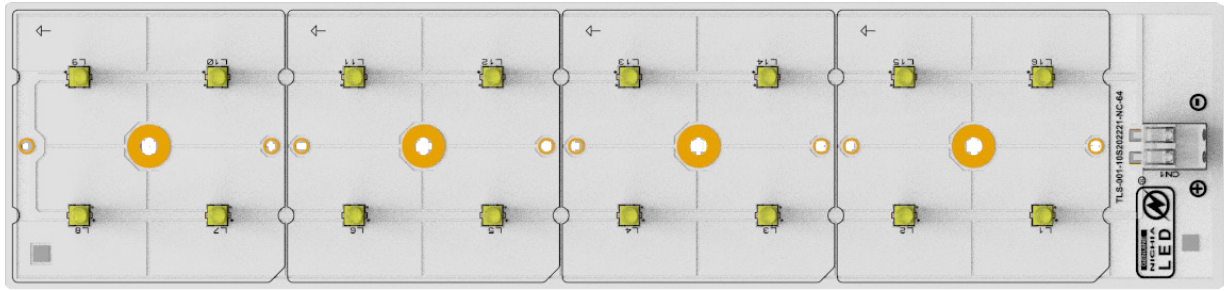


PRODUCT PHOTO



SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700K up to 6500K
- This module can be used as 16 series.
- Luminous flux range from 2500 lm to 9459 lm
- Efficacy of the module up to 180 lm/W
- CRI 80 is standard. CRI 70 and CRI 90 is available.
- Outstanding system color tolerance MacAdam 3 over the full operating area
- Simple installation (e.g. screw)
- Long life-time > 60,000 hours
- 5 years guarantee at specified conditions



For your orders please call us:

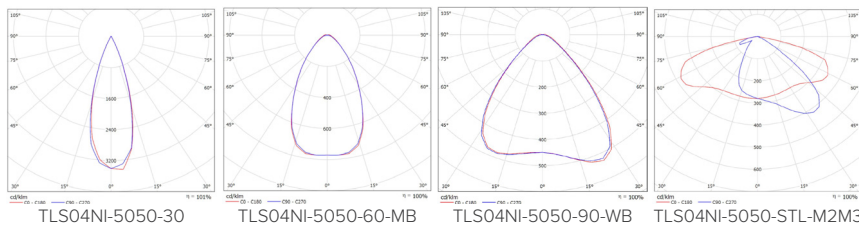
+90 444 27 33

APPLICATIONS



Street Lighting High Bay Lighting Flood Lighting

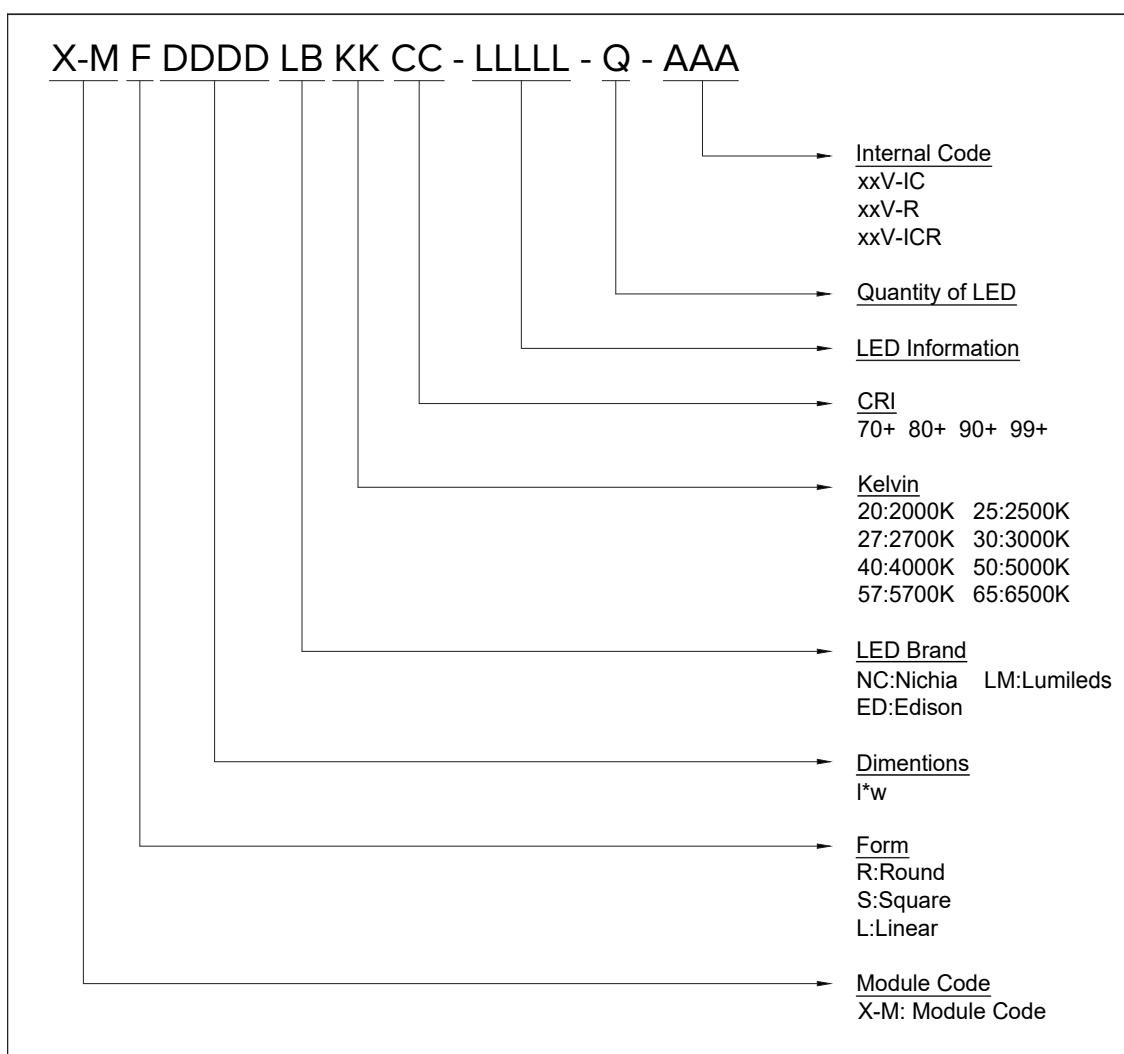
PHOTOMETRY



TECHNICAL DATA

Beam Angle	120°
Ambient temperature range	-25° ~ +55°C
Tc max	100°C
Max. DC forward current	1400mA
Typical voltage of LED Module at max current	50V
Insulation test voltage	2kV
ESD classification	Class 1
Risk group (EN 62471:2008)	2
Type of protection	IPO0

ORDERING INFORMATION



DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

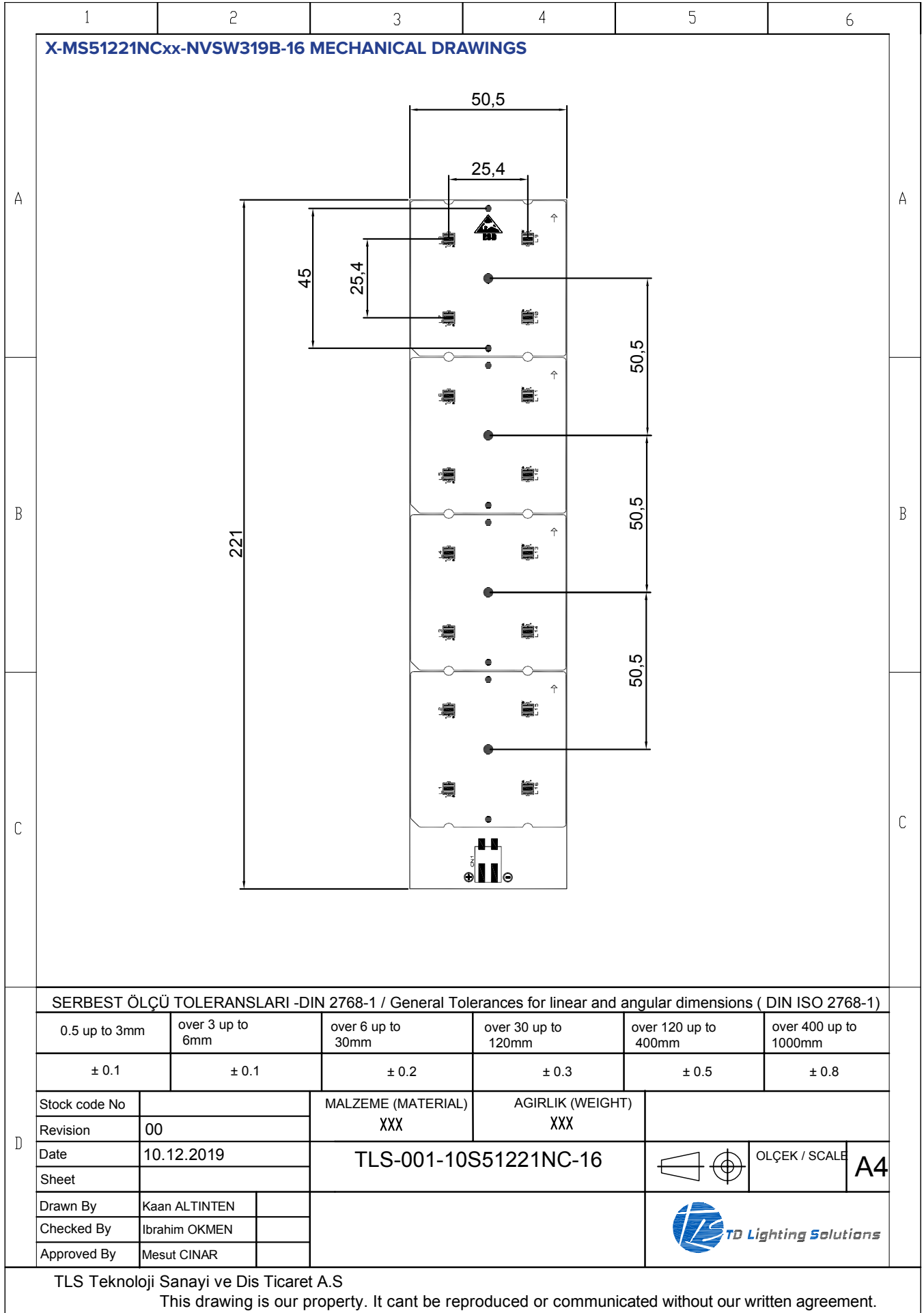
Common Characteristic [@Tj : 85°C] ;			
Module Code	X-MS51221NCxx-NVSW319B-16		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +100	Parallel	1
Storage Temperature (°C)	-40 ~ +55	Series	16
Thermal Conductivity (W/m-K)	1>	LED Quantity	16
LED NVSW319B_R8000			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	44	45	47,84
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	15,23	31,81	66,98
Module Light Output (lm)	2.513	4.803	8841
Module Efficiency (lm/W)	165	151	132
LED NVSW219F-V1_R8000			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	45	46	48,96
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	15,62	32,48	68,54
Module Light Output (lm)	2.500	4.742	8637
Module Efficiency (lm/W)	160	146	126
LED NVSW219F_R70			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	45	46	48,96
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	15,62	32,48	68,54
Module Light Output (lm)	2.812	5.262	9459
Module Efficiency (lm/W)	180	162	138

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

Lumen Output Multiplier					
LED	2700°K (CRI 80)	3000°K (CRI 80)	4000°K (CRI 80)	5000°K (CRI 80)	6500°K (CRI 80)
NVSW319B_R8000	0,92	0,94	1,00	1,01	0,98
NVSW219F-V1_R8000	0,88	0,92	0,96	0,97	0,94

Lumen Output Multiplier					
LED	2700°K (CRI 70)	3000°K (CRI 70)	4000°K (CRI 70)	5000°K (CRI 70)	6500°K (CRI 70)
NVSW219F_R70	0,93	0,95	1,00	1,01	X

Relative luminous intensity versus CCT (°K)



LIFE TIME

MODEL NUMBER: NVSW319B

Test Summary:

Data Set	Case Temperature [°C]	Ambient Temperature [°C]	Drive Current [mA]	Lumen Maintenance at 10K hours [%]	Chromaticity Shift ($\Delta u'v'$) at 10K hours	TM-21 Projection L70(10K) [hours]	TM-21 Projection L80(10K) [hours]	TM-21 Projection L90(10K) [hours]
1	55	> 50	1050	98.5	0.0006	> 60000	> 60000	> 60000
2	55	> 50	1200	98.5	0.0007	> 60000	> 60000	> 60000
3	55	> 50	1500	98.2	0.0008	> 60000	> 60000	55500
4	85	> 80	1050	98.2	0.0008	> 60000	> 60000	> 60000
5	85	> 80	1200	98.0	0.0010	> 60000	> 60000	> 60000
6	85	> 80	1500	97.4	0.0014	> 60000	> 60000	45800
7	105	> 100	1050	97.6	0.0014	> 60000	> 60000	56600
8	105	> 100	1200	97.2	0.0016	> 60000	> 60000	44600
9	105	> 100	1500	88.2	0.0022	22800	15900	9870

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