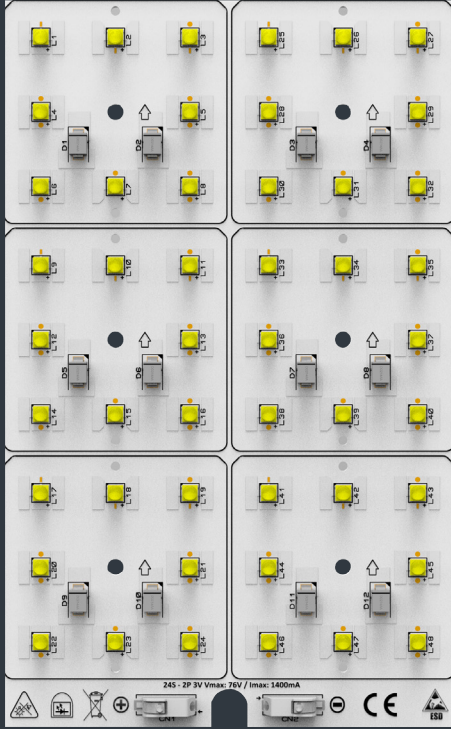




TD Lighting Solutions

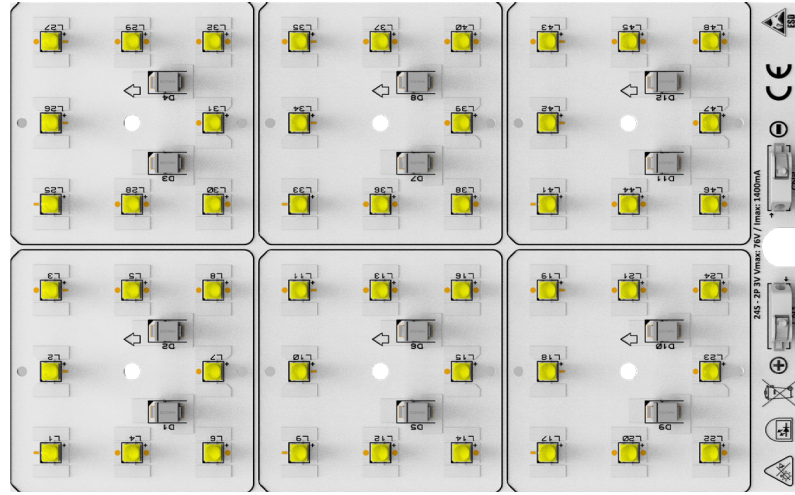


X-MS100162NCxx-NVSW219F-48

Square Design

www.tlsteknoloji.com

PRODUCT PHOTO



SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700K up to 6500K
- This module can be used as 24 series 2 parallels.
- Luminous flux range from 9843 lm to 15087 lm
- Efficacy of the module up to 166 lm/W
- CRI 70 is standard.CRI 80 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:

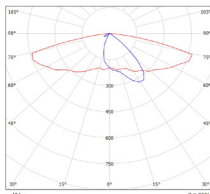
+90 444 27 33

APPLICATIONS



Street Lighting

PHOTOMETRY



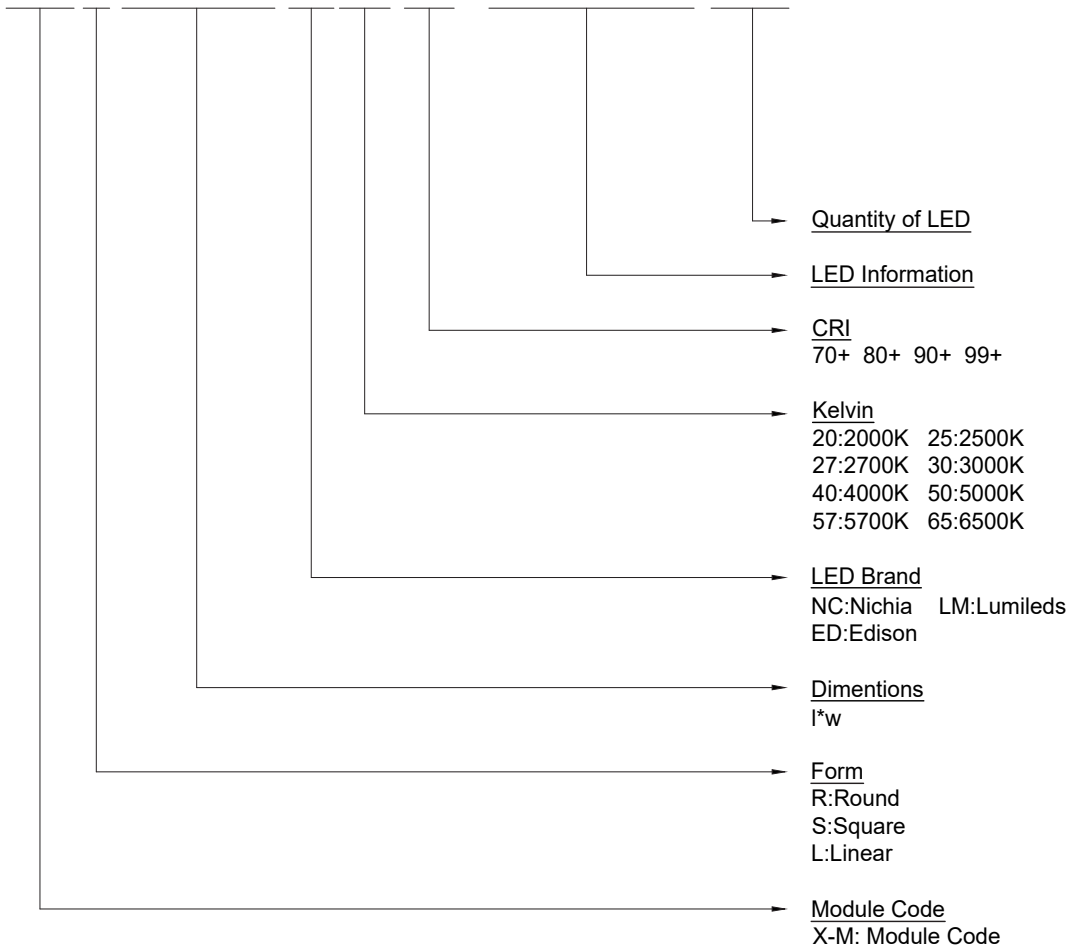
TLS08NI-5050-STL-M2M3

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	69 V
Insulation test voltage	2kV
ESD classification	Class 1
Risk group (EN 62471:2008)	2
Type of protection	IP00

ORDERING INFORMATION

X-M F DDDDDD LB KK CC - LLLLLL - LLL QQQ



DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

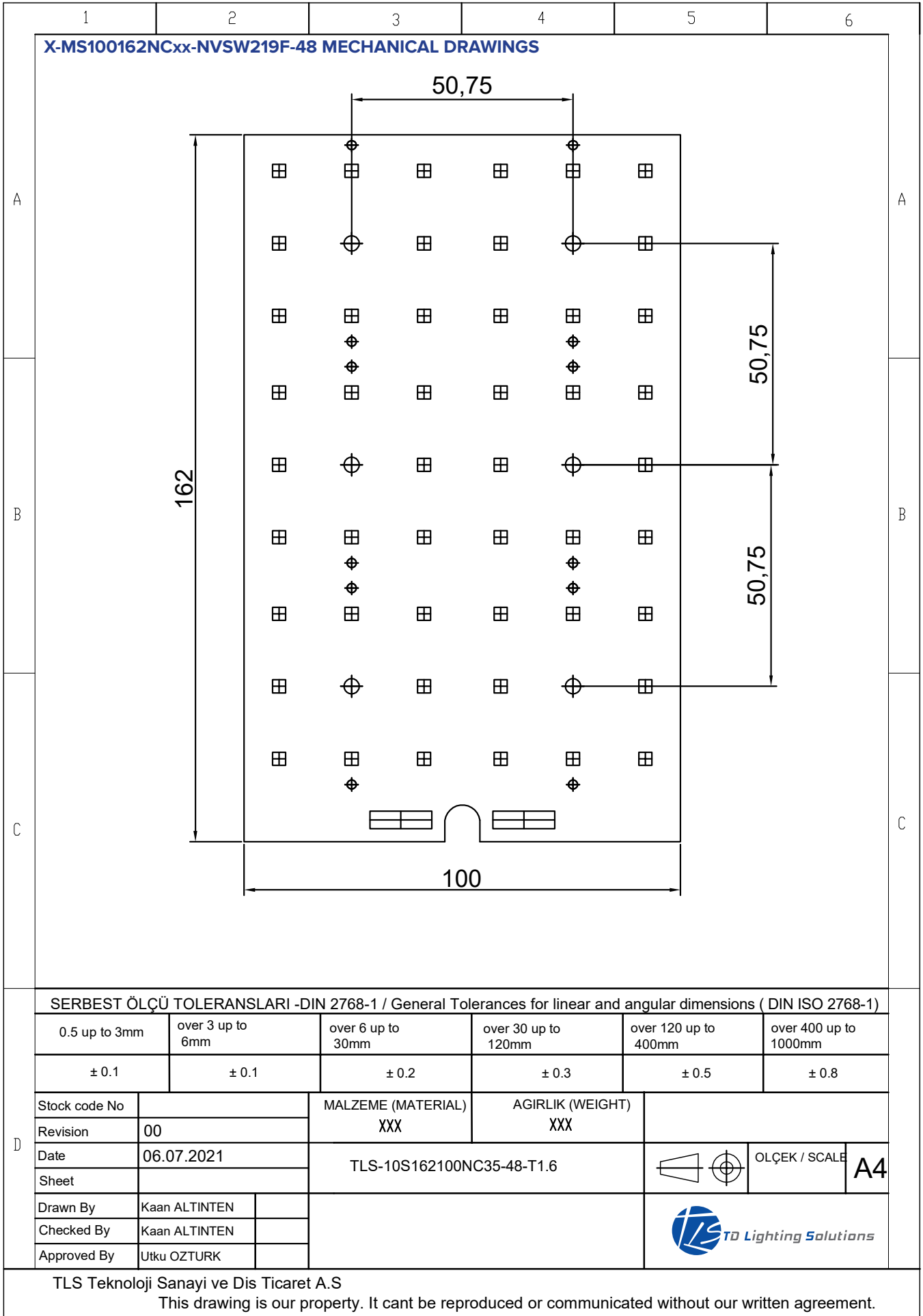
Common Characteristic [Tj : 85°C] ;			
Module Code	X-M162100NC-40xx-NVSW219F-48		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +100	Parallel	2
Storage Temperature (°C)	-40 ~ +55	Series	24
Thermal Conductivity (W/m-K)	1>	LED Quantity	48
LED NVSW219F-V1_R8000			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	67	68	69
Module Operating Current (mA)	1000	1200	1400
Branch Operating Current (mA)	500	600	700
Module Power (W)	66,96	81,50	96,10
Module Light Output (lm)	9.843	11.655	13453
Module Efficiency (lm/W)	147	143	140
LED NVSW219F_R70			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	67	68	69
Module Operating Current (mA)	1000	1200	1400
Branch Operating Current (mA)	500	600	700
Module Power (W)	66,96	81,50	96,10
Module Light Output (lm)	11.115	13.122	15087
Module Efficiency (lm/W)	166	161	157

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

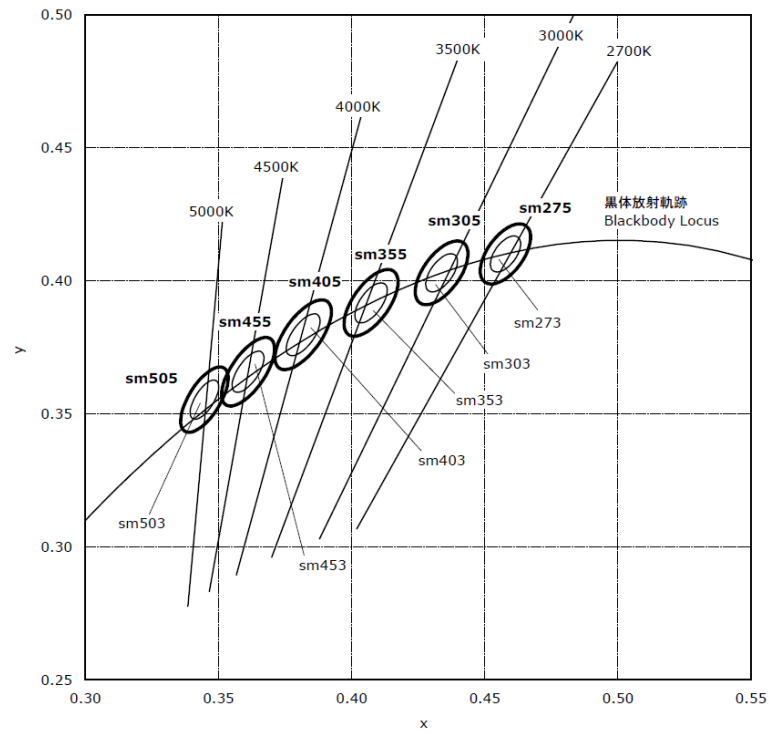
Lumen Output Multiplier					
LED	2700°K (CRI 80)	3000°K (CRI 80)	4000°K (CRI 80)	5000°K (CRI 80)	6500°K (CRI 80)
NVSW219F-V1_R8000	0,88	0,92	0,96	0,97	0,94

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)



CCT AND BINNING INFORMATION



LIFE TIME

MODEL NUMBER: NVSWF219F



Report No. : SQETMS534401

LM-80 Test Report

This LM-80 testing is performed in accordance with IES LM-80-15.

Part No. NVSW219F

Issue Date: November 4, 2020 Revision Date: -
 Test Initiation Date: March 29, 2018 Test Completion Date: June 19, 2020
 Test Duration: 10,000 hours Report No.: SQETMS534401

Customer Information:

Company Name: Nichia Corporation
 Address: 491-100, Oka, Kaminaka-cho, Anan-shi, Tokushima, 774-8601, JAPAN

Description of Test Samples:

Manufacturer's Name: Nichia Corporation
 Classification: LED Package
 Part Name: White LED
 Part No.: NVSW219F
 Nominal CCT: 2700 K

Test Summary:

Data Set	Case Temperature [°C]	Ambient Temperature [°C]	Drive Current [mA]	Luminous Flux Maintenance at 10K hours [%]	Chromaticity Shift ($\Delta u'v'$) at 10K hours	TM-21 Projection $L_{50}(10K)$ [hours]	TM-21 Projection $L_{50}(10K)$ [hours]	TM-21 Projection $L_{50}(10K)$ [hours]
1	55	> 50	700	98.6	0.0005	> 60000	> 60000	> 60000
2	55	> 50	1500	97.6	0.0007	> 60000	> 60000	> 60000
3	85	> 80	700	98.3	0.0005	> 60000	> 60000	> 60000
4	85	> 80	1200	97.7	0.0010	> 60000	> 60000	> 60000
5	85	> 80	1500	96.9	0.0015	> 60000	> 60000	> 60000
6	105	> 100	700	97.6	0.0007	> 60000	> 60000	> 60000
7	105	> 100	1200	95.8	0.0019	> 60000	> 60000	32100
8	105	> 100	1500	83.6	0.0019	15200	11200	7720 *

* The Lp value is reached experimentally in the course of LM-80 testing.



Approved Signatory:

T. Wakaki

Takara WAKAKI, Lab Manager

Nichia Corporation LED Testing Laboratory

1-1, Tatsumi-cho, Anan-shi, TOKUSHIMA 774-0001, JAPAN

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