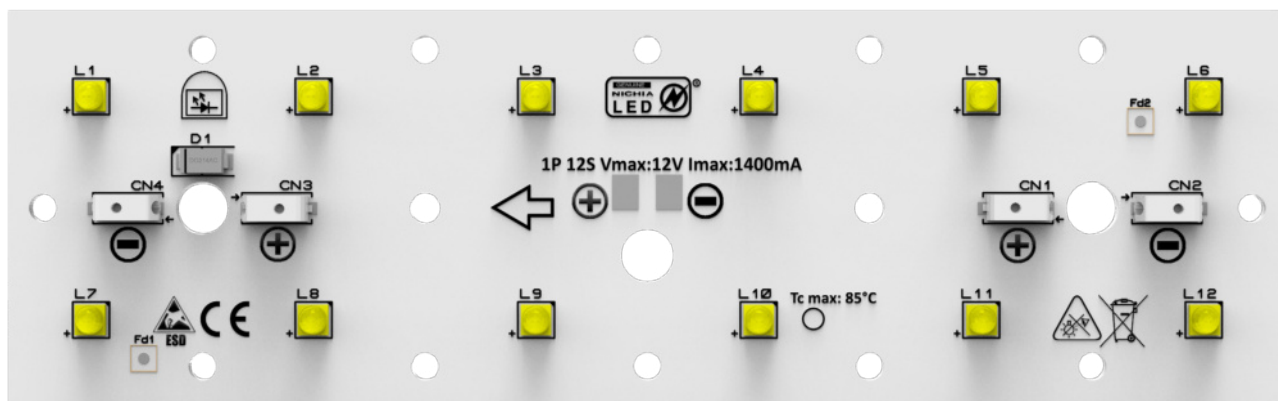


PRODUCT PHOTO



SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700K up to 6500K
- This module can be used as 12 series.
- Luminous flux range from 1875 lm to 7094 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



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APPLICATIONS



Street Lighting



High Bay Lighting

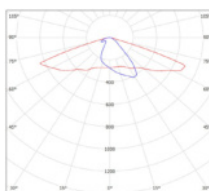


Low Bay Lighting

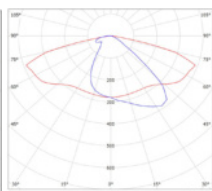


Gas Station Lighting

PHOTOMETRY



TI S12NI-W711

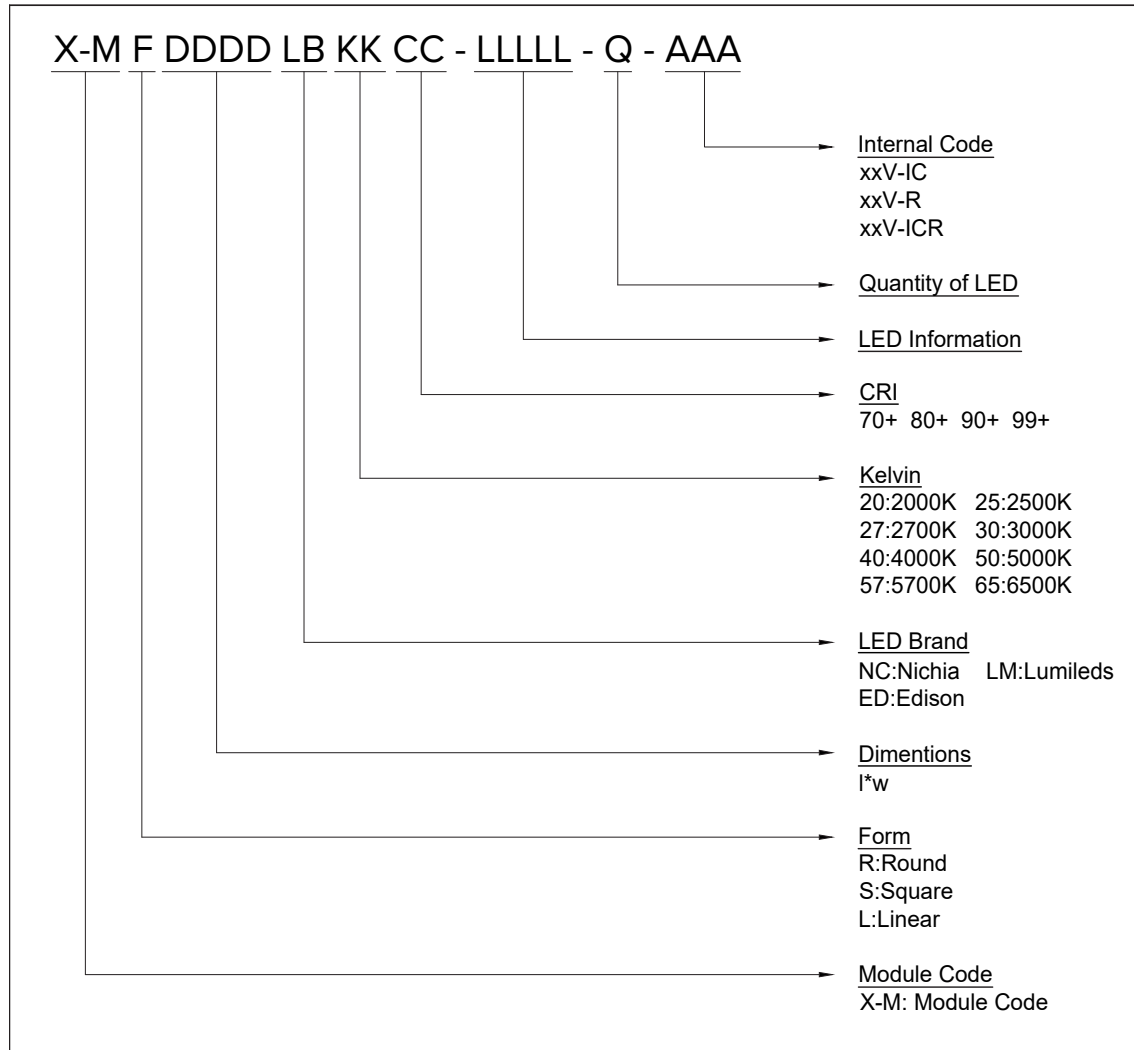


TL S12NI-W71I 173-STI -H-M2M3-IP

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

ORDERING INFORMATION



DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

Common Characteristic [@Tj : 85°C] ;			
Module Code	X-ML45146NC40xx-NVSW219F-12		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +100	Parallel	1
Storage Temperature (°C)	-40 ~ +55	Series	12
Thermal Conductivity (W/m-K)	1>	LED Quantity	12
LED NVSW319B_R8000			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	32,64	34,08	35,88
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	11,42	23,86	50,23
Module Light Output (lm)	1.885	3.602	6631
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)	33,48	34,8	36,72
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	11,72	24,36	51,41
Module Light Output (lm)	1.875	3.557	6477
Module Efficiency (lm/W)	160	146	126
LED NVSW219F_R70			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	33,48	34,8	36,72
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	11,72	24,36	51,41
Module Light Output (lm)	2.109	3.946	7094
Module Efficiency (lm/W)	180	162	138

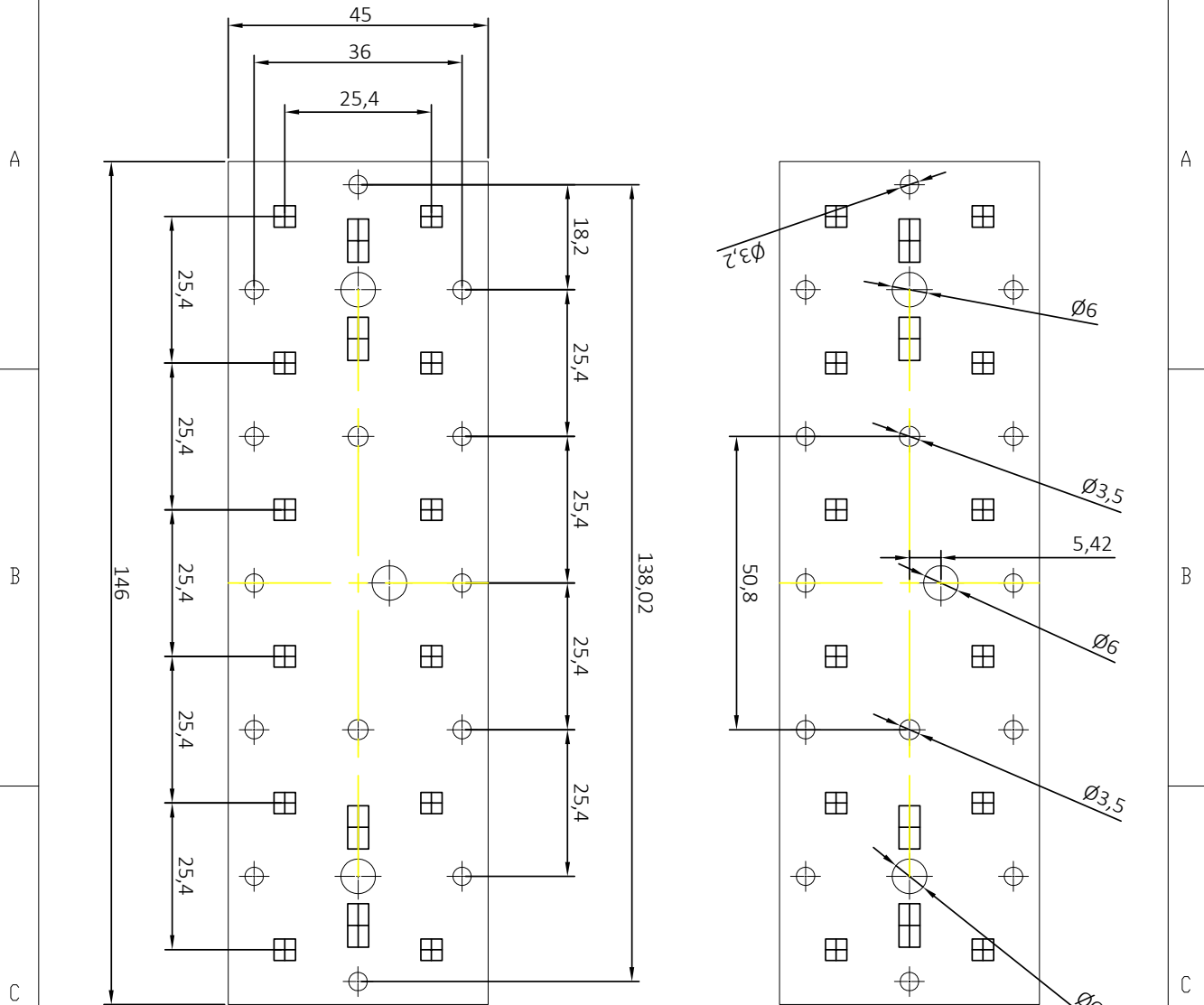
The table below shows how to Module Light Output changes depending on CCT (°K)

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)

X-ML45146NC4070-NVSW219F-12 MECHANICAL DRAWINGS



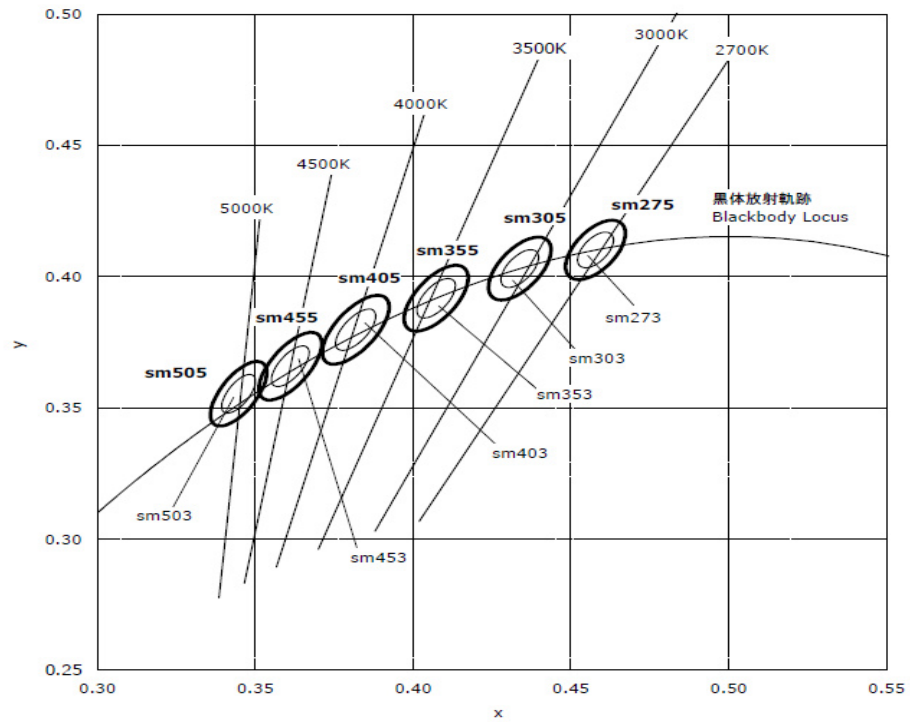
SERBEST ÖLÇÜ TOLERANSLARI -DIN 2768-1 / General Tolerances for linear and angular dimensions (DIN ISO 2768-1)

0.5 up to 3mm	over 3 up to 6mm	over 6 up to 30mm	over 30 up to 120mm	over 120 up to 400mm	over 400 up to 1000mm
± 0.1	± 0.1	± 0.2	± 0.3	± 0.5	± 0.8
Stock code No	MALZEME (MATERIAL)		AGIRLIK (WEIGHT)		
Revision	--		--		
Date	26.07.2022		TLS-40433-10S45146NC35-12-V3-T1.6-CN_Mekanik		
Sheet	1/1				
Drawn By	Ibrahim OKMEN				
Checked By	Ibrahim OKMEN				
Approved By	--				

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CCT AND BINNING INFORMATION



LIFE TIME

MODEL NUMBER: NVSW219F



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 $L_{70}(10K)$ [hours]	TM-21 Projection $L_{60}(10K)$ [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 L_p value is reached experimentally in the course of LM-80 testing.

Approved Signatory:

Takara WAKAKI, Lab Manager

Nichia Corporation LED Testing Laboratory

1-1, Tatsumi-Cho, Anan-Shi, TOKUSHIMA 774-0001, JAPAN

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