







## DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

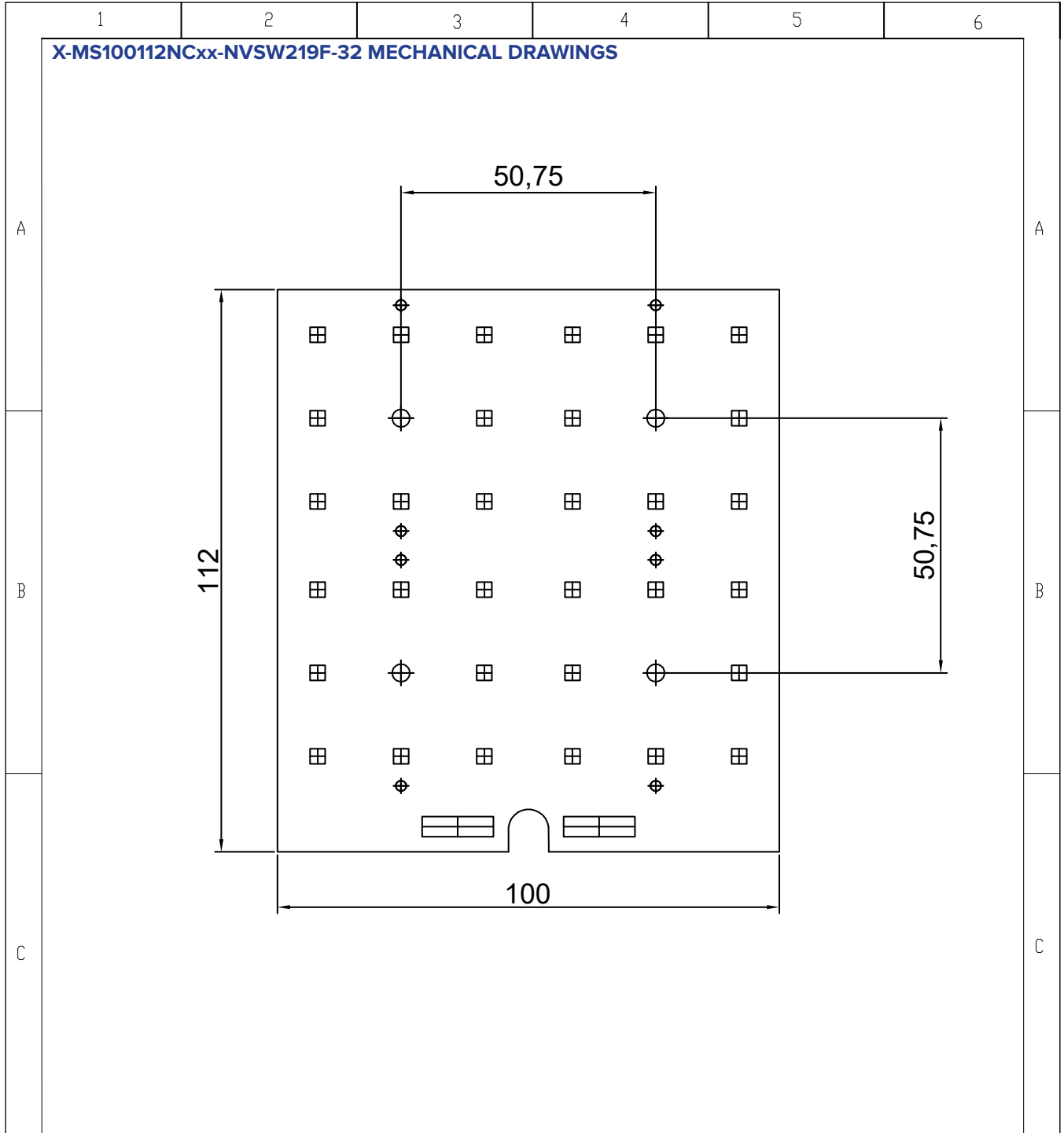
Common Characteristic [@Tj : 85°C] ;			
Module Code	X-MS100112NCxx-NVSW219F-32		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +100	Parallel	1
Storage Temperature (°C)	-40 ~ +55	Series	32
Thermal Conductivity (W/m-K)	1>	LED Quantity	32
<b>LED NVSW219F-V1_R8000</b>			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	89	91	92
Module Operating Current (mA)	500	700	700
Branch Operating Current (mA)	500	600	700
Module Power (W)	44,64	63,39	64,06
Module Light Output (lm)	6.562	9.065	8969
Module Efficiency (lm/W)	147	143	140
<b>LED NVSW219F_R70</b>			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	89	91	92
Module Operating Current (mA)	500	600	700
Branch Operating Current (mA)	500	600	700
Module Power (W)	44,64	54,34	64,06
Module Light Output (lm)	7.410	8.748	10058
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)



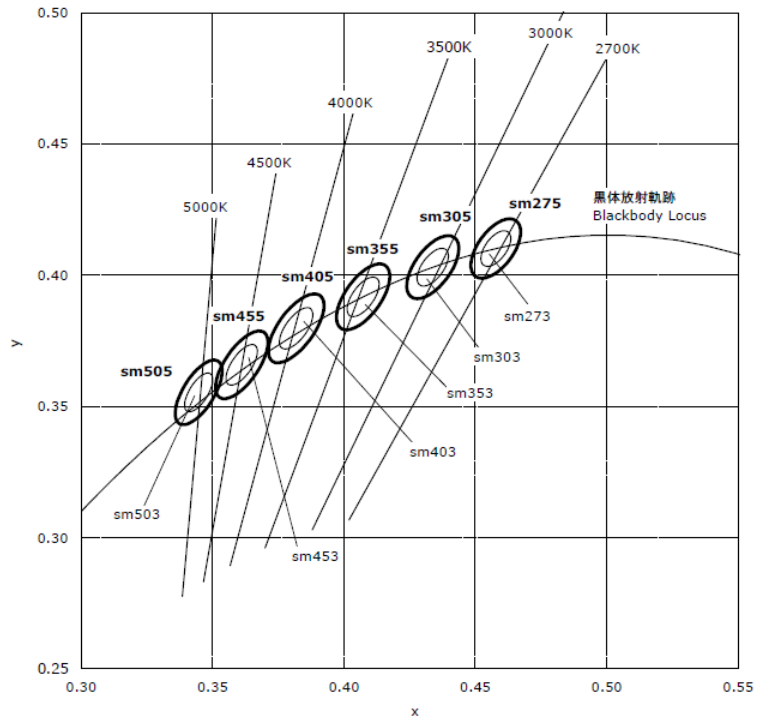
## SERBEST ÖLÇÜ TOLERANSLARI -DIN 2768-1 / General Tolerances for linear and angular dimensions ( DIN ISO 2768-1)

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	00	XXX	XXX		
Date	06.07.2021	TLS-10S112100NC35-32-T1.6		OLÇEK / SCALE	A4
Sheet					
Drawn By	Kaan ALTINTEN			 <b>TD Lighting Solutions</b>	
Checked By	Kaan ALTINTEN				
Approved By	Utku OZTURK				

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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 $L_{50}(10K)$ [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  $L_p$  value is reached experimentally in the course of LM-80 testing.

Approved Signatory:

Takara WAKAKI, Lab Manager

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