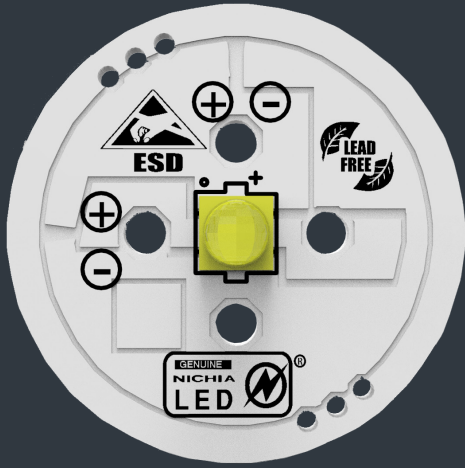




TD Lighting Solutions

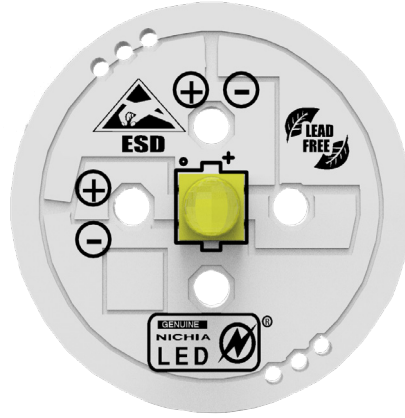


X-MR0020NCxx-NVSW319B-1

Round Series

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 1 series.
- Luminous flux range from 156 lm to 591 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

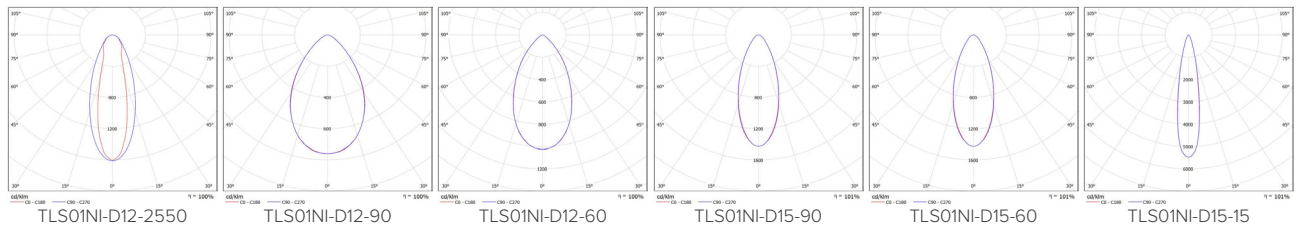
APPLICATIONS



Spotlight

Flood Lighting

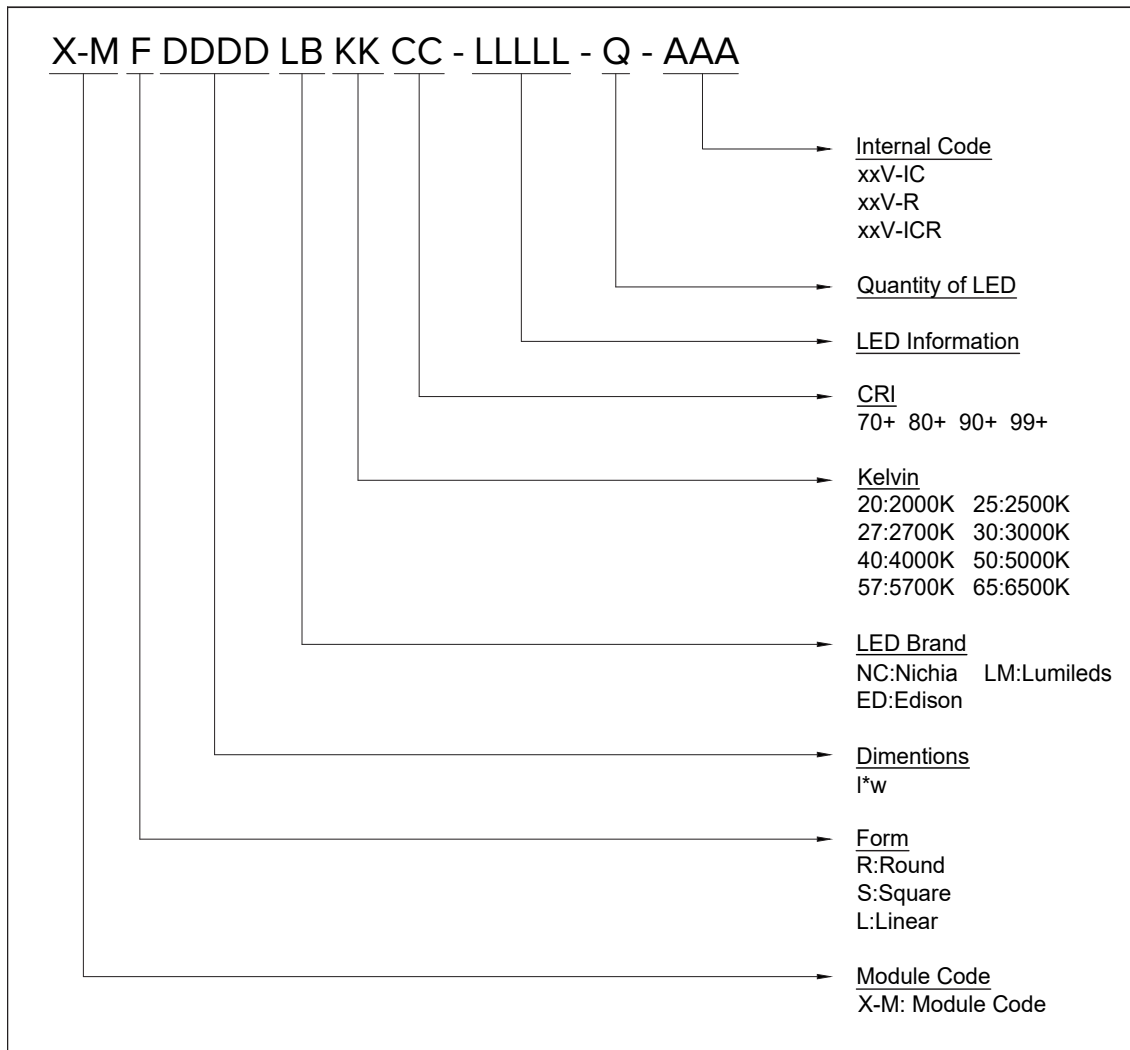
PHOTOMETRY



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	3,1V
Insulation test voltage	2kV
ESD classification	Class 1
Risk group (EN 62471:2008)	2
Type of protection	IPO0

ORDERING INFORMATIONS



DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

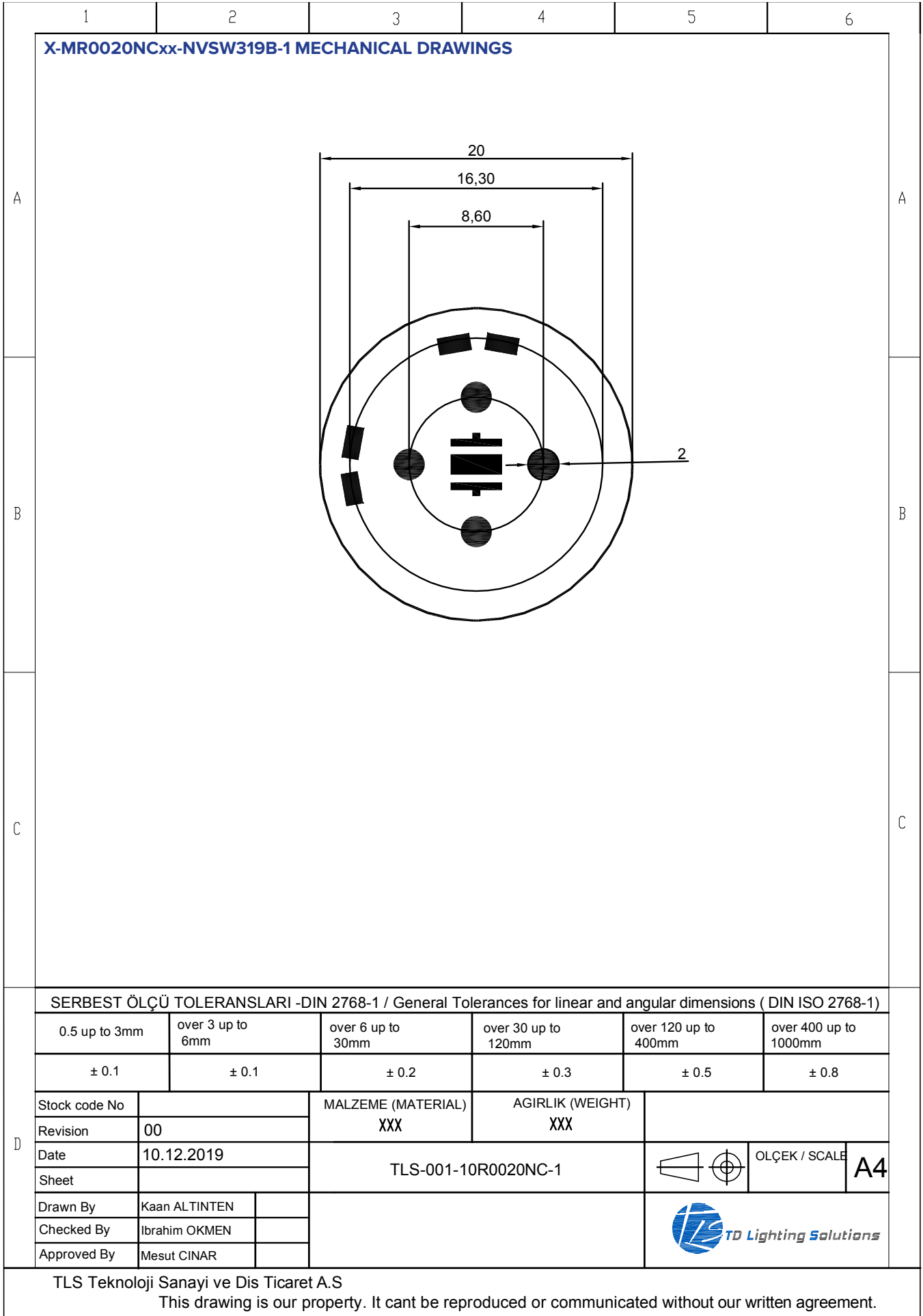
Common Characteristic [@Tj : 85°C] ;			
Module Code	MR0020NCxx-NVSW319B-1		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +100	Parallel	1
Storage Temperature (°C)	-40 ~ +55	Series	1
Thermal Conductivity (W/m-K)	1>	LED Quantity	1
LED NVSW319B_R8000			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	2,72	2,84	2,99
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	0,95	1,99	4,19
Module Light Output (lm)	157	300	553
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)	2,79	2,9	3,06
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	0,98	2,03	4,28
Module Light Output (lm)	156	296	540
Module Efficiency (lm/W)	160	146	126
LED NVSW219F_R70			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	2,79	2,9	3,06
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	0,98	2,03	4,28
Module Light Output (lm)	176	329	591
Module Efficiency (lm/W)	180	162	138

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

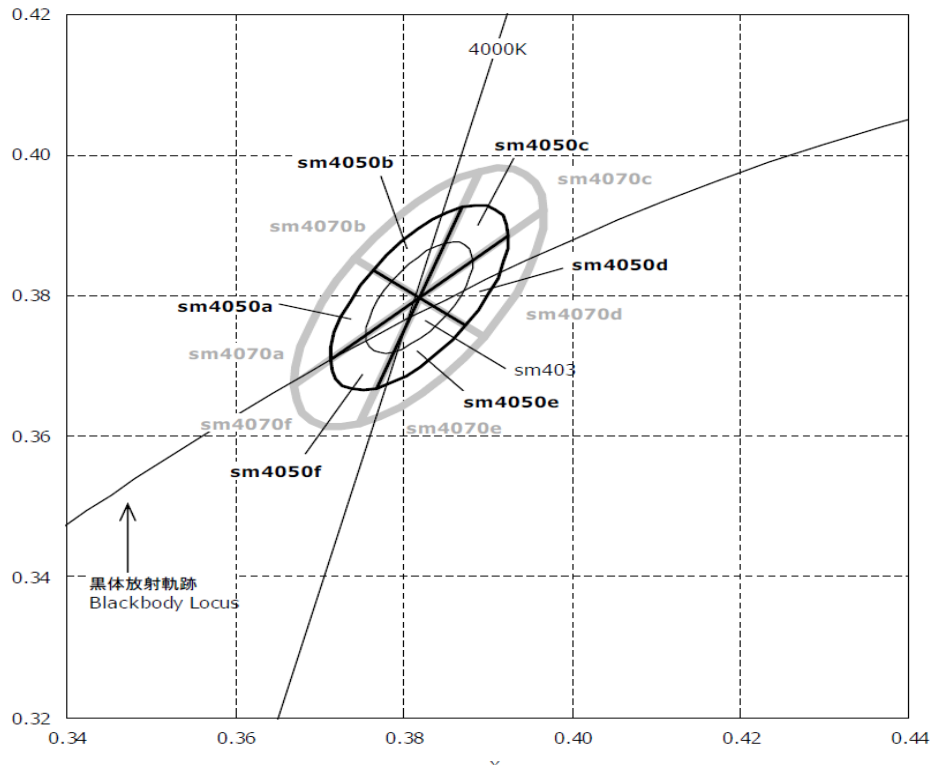
Lumen Output Multiplier					
LED	2700°K (CRI 80)	3000°K (CRI 80)	4000°K (CRI 80)	5000°K (CRI 80)	6500°K (CRI 80)
NVSW319B_R8000	0,92	0,94	1,00	1,01	0,98
NVSW219F-V1_R8000	0,88	0,92	0,96	0,97	0,94

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)



CCT AND BINNING INFORMATION



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 L ₇₀ (10K) [hours]	TM-21 Projection L ₈₀ (10K) [hours]	TM-21 Projection L ₉₀ (10K) [hours]
1	55	> 50	700	99.8	0.0016	> 60000	> 60000	> 60000
2	55	> 50	1500	99.1	0.0019	> 60000	> 60000	> 60000
3	85	> 80	700	99.4	0.0019	> 60000	> 60000	> 60000
4	85	> 80	1200	97.0	0.0018	> 60000	> 60000	38400
5	85	> 80	1500	99.4	0.0021	> 60000	> 60000	> 60000
6	105	> 100	700	94.4	0.0014	> 60000	47900	20600
7	105	> 100	1200	91.8	0.0017	54100	32200	13000
8	105	> 100	1500	90.1	0.0022	46500	27100	9880
9	120	> 115	700	94.4	0.0018	> 60000	> 60000	25200
10	120	> 115	1200	94.5	0.0029	> 60000	57900	23900
11	120	> 115	1500	89.1	0.0037	49100	27300	8180

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