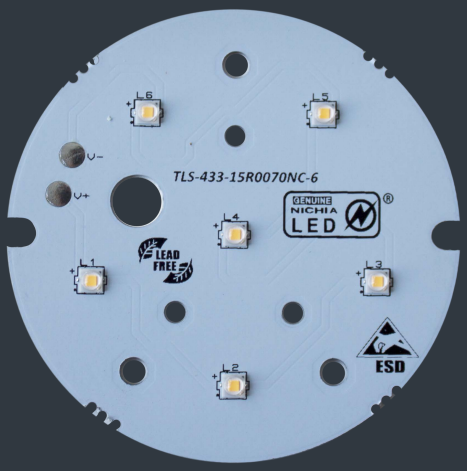


TD Lighting Solutions

X-MR0070NC-4080-NVSx219C-6

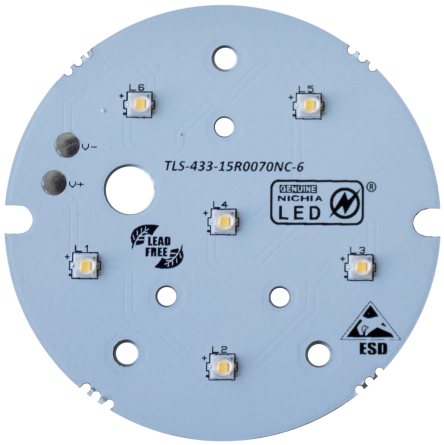
Round Series

www.**tlsteknoloji**.com

DATASHEET

X-MR0070NC-4080-NVSx219C-6

PRODUCT PHOTO



SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2000°K up to 6500°K
- Luminous flux range from 834 lm to 2722 lm
- Efficacy of the module up to 146 lm/W
- CRI 80 is standart, CRI 70 and CRI 90 are 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:
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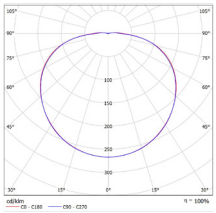
APPLICATIONS

Interior Architecrual Lighting

PHOTOMETRY



W/O LENS

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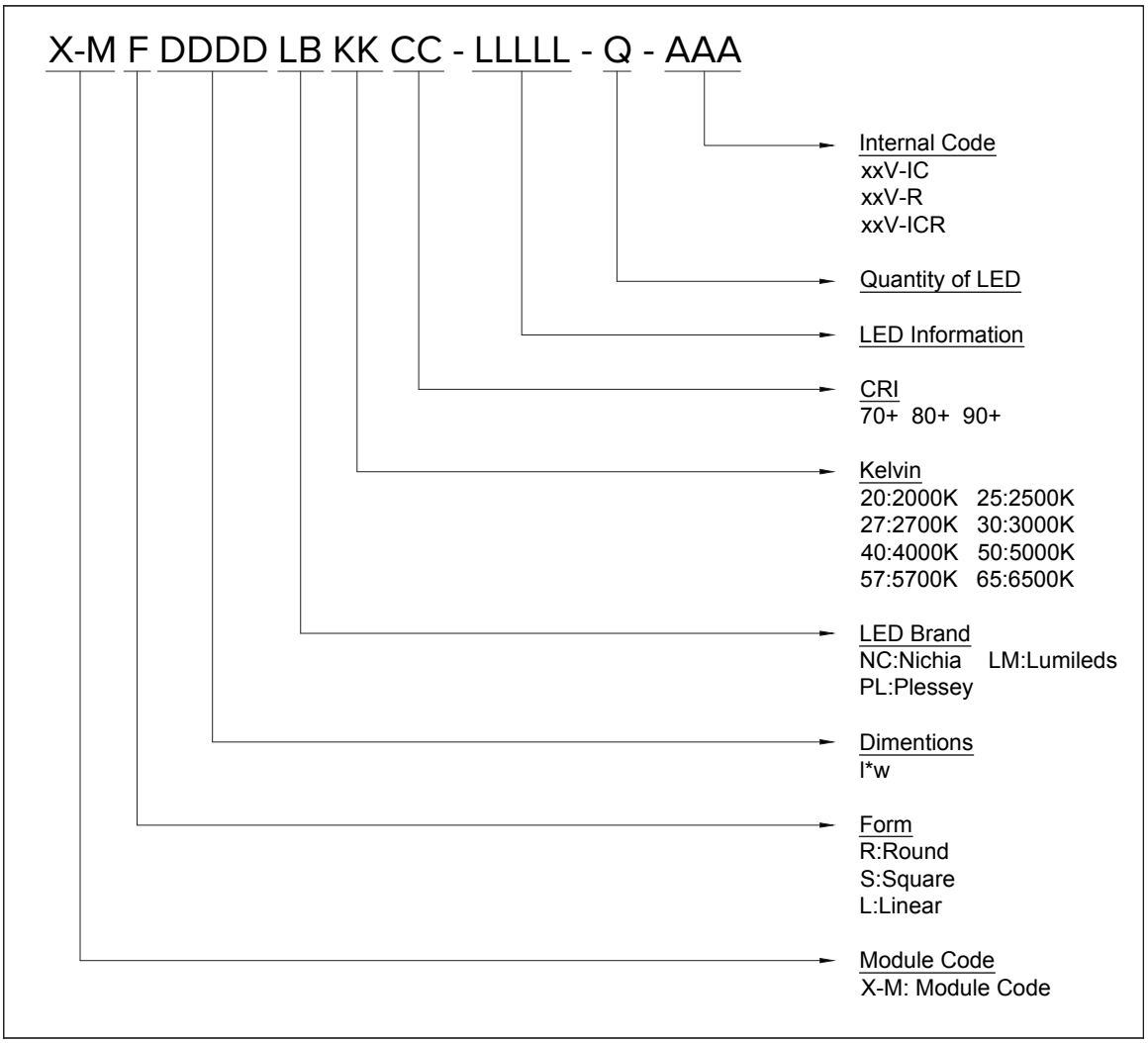
TECHNICAL DATA

Beam Angle		130°
Ambient temperature range		-25° ~ +55°C
Tc max		85°C
Max. DC forward current	**NVSx219B-V1**	1400mA
Typical voltage of LED Module at max current		18,3 V
Max. DC forward current	**NVSx219C**	1700mA
Typical voltage of LED Module at max current		19,0 V
Max. DC forward current	**NVSx319A**	1900mA
Typical voltage of LED Module at max current		18,4 V
Max. Permissible current ripple of LED Driver		5%
Insulation test voltage		2kV
ESD classification		Class 1C
Risk group (EN 62471:2008)		RG1 : ILED < 100mA, RG2: ILED > 100mA
Type of protection		IP00

ORDERING INFORMATIONS



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DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

Common Characteristic [@Tj : 85°C]				
LED Brand & Type	X-MR0070NC-4080-NVSx219C-6		Electrical Connection	
PCB Material	Aluminium			
Operating Temperature (°C)	-40 ~ 100		Parallel	1
Storage Temperature (°C)	-40 ~ 100		Series	6
Thermal Conductivity (W/m-K)	1.5		Total LED Quantity	6
LED	**NVSL219B-V1**			
Correlated Color Temperature (CCT)	**4000K**			
Color Rendering Index (CRI)	80+			
Module Operating Current (mA)	**350**	**700**	**1050**	**1400**
Branch Operating Current (mA)	350	700	1050	1400
Module Operating Voltage (V)	16,4	17,2	17,8	18,3
Module Power (W)	5,7	12,1	18,7	25,6
Module Light Output (lm)	804	1483	2074	2620
Module Efficiency (lm/W)	**140**	**123**	**111**	**103**
LED	**NVSL219C**			
Correlated Color Temperature (CCT)	**4000K**			
Color Rendering Index (CRI)	80+			
Module Operating Current (mA)	**350**	**700**	**1050**	**1400**
Branch Operating Current (mA)	350	700	1050	1400
Module Operating Voltage (V)	16,4	17,2	17,9	18,5
Module Power (W)	5,7	12,0	18,8	25,9
Module Light Output (lm)	834	1523	2142	2722
Module Efficiency (lm/W)	**146**	**127**	**114**	**105**
LED	**NVSL319A**			
Correlated Color Temperature (CCT)	**4000K**			
Color Rendering Index (CRI)	80+			
Module Operating Current (mA)	**350**	**700**	**1050**	**1400**
Branch Operating Current (mA)	350	700	1050	1400
Module Operating Voltage (V)	16,1	16,8	17,4	17,8
Module Power (W)	5,6	11,8	18,3	25,0
Module Light Output (lm)	855	1622	2302	2923
Module Efficiency (lm/W)	**152**	**138**	**126**	**117**

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 70)	5000°K (CRI 80)	5000°K (CRI 90)	5700°K (CRI 70)	5700°K (CRI 90)	6500°K (CRI 70)
NVSL219B-V1	0,899	0,944	1,000	1,160	1,018	0,809	1,122	0,791	1,110
NVSL219C	0,901	0,950	1,000	1,169	0,997	0,902	1,129	0,902	1,118
NVSL319A	0,910	0,952	1,000	1,154	0,969	x	1,106	x	1,099

Relative luminous intensity versus CCT (°K)

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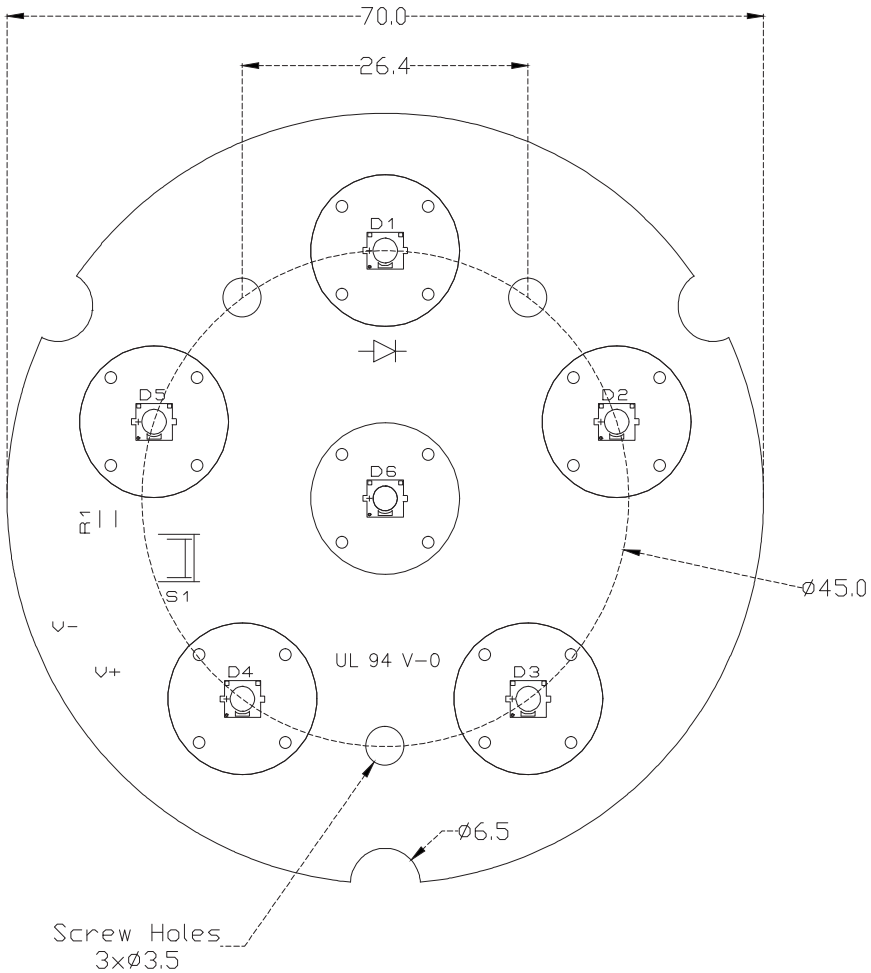
DATASHEET

X-MR0070NC-4080-NVSx219C-6

X-MR0070NC-4080-NVSx219C-6 MECHANICAL DRAWINGS



SERBEST ÖLÇÜ TOLERANSLARI -DIN 2768-1 / General Tolerances for linear and angular dimensions (DIN ISO 2768-1)											
0.5 up to 3mm	± 0.1	over 3 up to 6mm	± 0.1	over 6 up to 30mm	± 0.2	over 30 up to 120mm	± 0.3	over 120 up to 400mm	± 0.5	over 400 up to 1000mm	± 0.8

Stock code No : 19238	MALZEME (MATERIAL) PC	AGIRLIK (WEIGHT)	
Revision : 00			
Date: 02.02.2017	PARÇA NO (PART NO) TLS-001-15R0070NC-6	ÖLÇEK / SCALE	A4
Sheet : 1			
Drawn By M. KAZAKLI		TD Lighting Solutions	
Checked By O. SANATSEVER			
Approved By M. CINAR			

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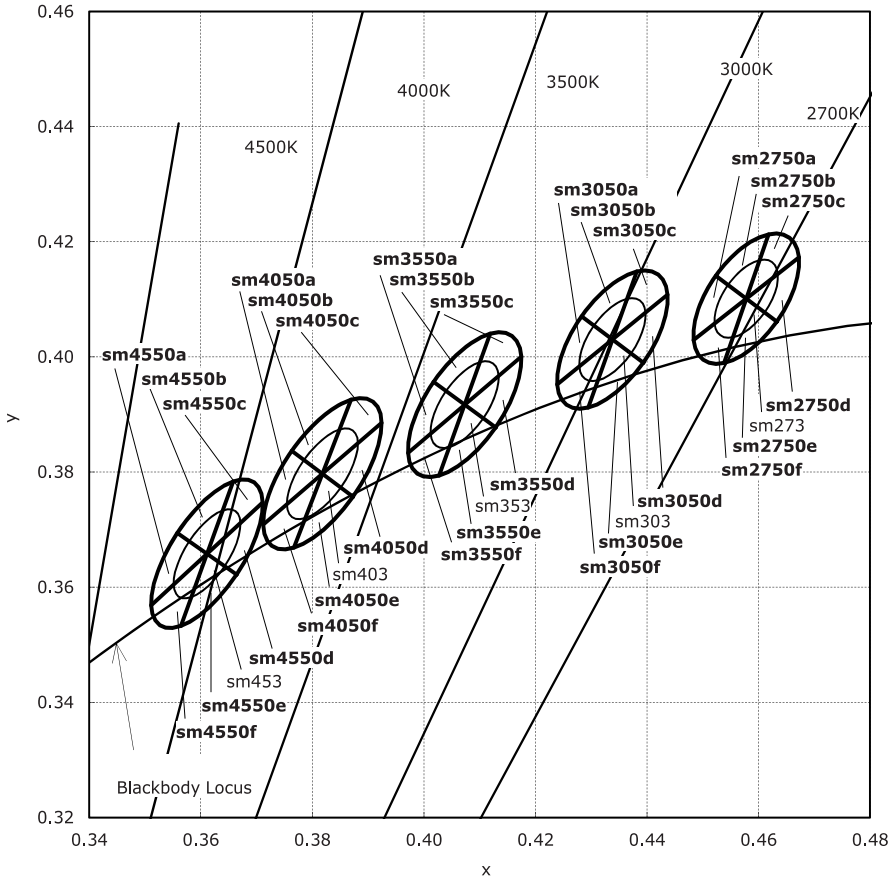
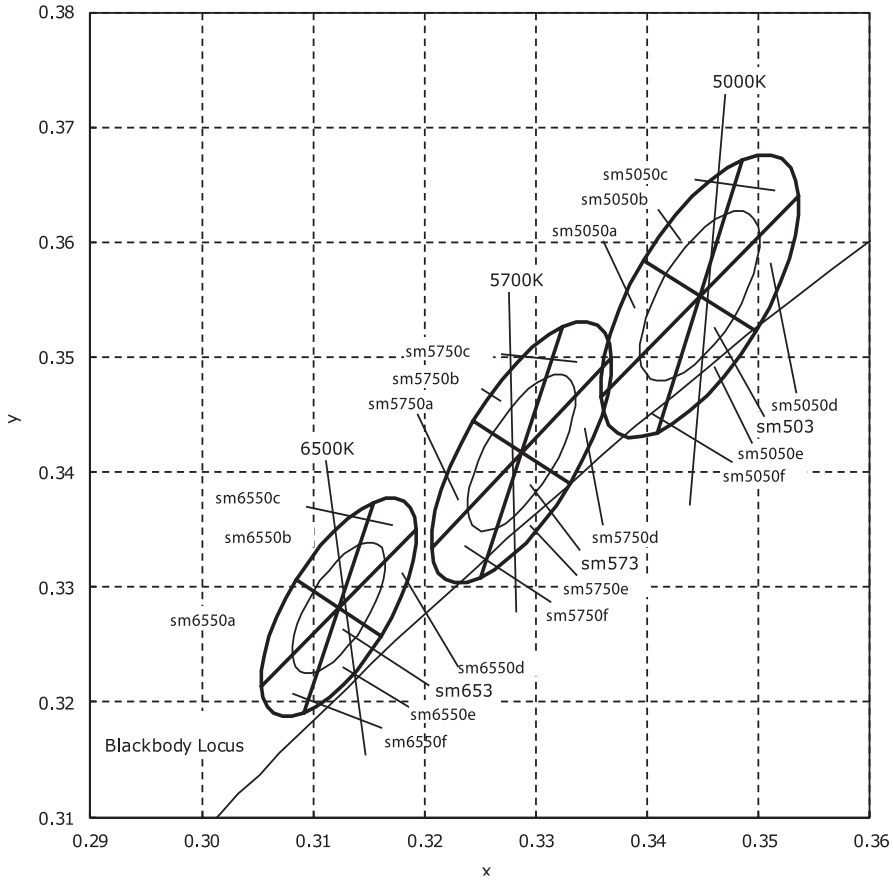
CCT AND BINNING INFORMATION





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LIFETIME PROJECTION & WORST CONDITION PERFORMANCE

MODEL NUMBER: **NVSL219C**

Test Summary:

Data Set	Case Temperature [T_S]	Ambient Temperature [T_A]	Drive Current [I_F]	Lumen Maintenance at 10,000 hours	Chromaticity Shift (Δu'v') at 10,000 hours	TM-21 Projection L_{70}(10K)	TM-21 Projection L_{80}(10K)	TM-21 Projection L_{90}(10K)
1	55 °C	> 50 °C	700 mA	99.8 %	0.0016	> 60000 hours	> 60000 hours	> 60000 hours
2	55 °C	> 50 °C	1500 mA	99.1 %	0.0019	> 60000 hours	> 60000 hours	> 60000 hours
3	85 °C	> 80 °C	700 mA	99.4 %	0.0019	> 60000 hours	> 60000 hours	> 60000 hours
4	85 °C	> 80 °C	1200 mA	97.0 %	0.0018	> 60000 hours	> 60000 hours	38400 hours
5	85 °C	> 80 °C	1500 mA	99.4 %	0.0021	> 60000 hours	> 60000 hours	> 60000 hours
6	105 °C	> 100 °C	700 mA	94.4 %	0.0014	> 60000 hours	47900 hours	20600 hours
7	105 °C	> 100 °C	1200 mA	91.8 %	0.0017	54100 hours	32200 hours	13000 hours
8	105 °C	> 100 °C	1500 mA	90.1 %	0.0022	46500 hours	27100 hours	9880 hours
9	120 °C	> 115 °C	700 mA	94.4 %	0.0018	> 60000 hours	> 60000 hours	25200 hours
10	120 °C	> 115 °C	1200 mA	94.5 %	0.0029	> 60000 hours	57900 hours	23900 hours
11	120 °C	> 115 °C	1500 mA	89.1 %	0.0037	49100 hours	27300 hours	8180 hours

Data Set 6 : 105°C, 120mA

Test Duration used	0-6000 hrs
B	1,0107
α	2,0007E-01

Curve-fit equation:
Φ(t)=Bexp(-αt)

Lumen maintenance life equation:
$L_{70} = ln(B/0.7)/\alpha$

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