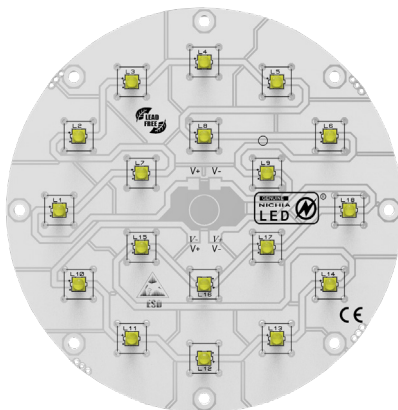




## PRODUCT PHOTO



## SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700K up to 6500K
- This module can be used as 18 series.
- Luminous flux range from 2812 lm to 10641 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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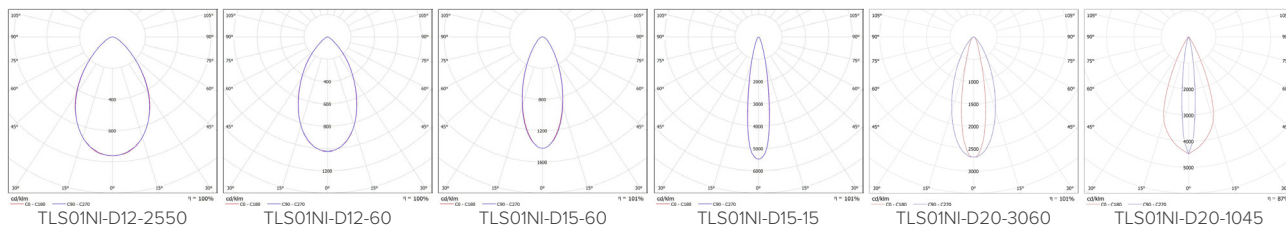
## APPLICATIONS



Spotlight

Downlight

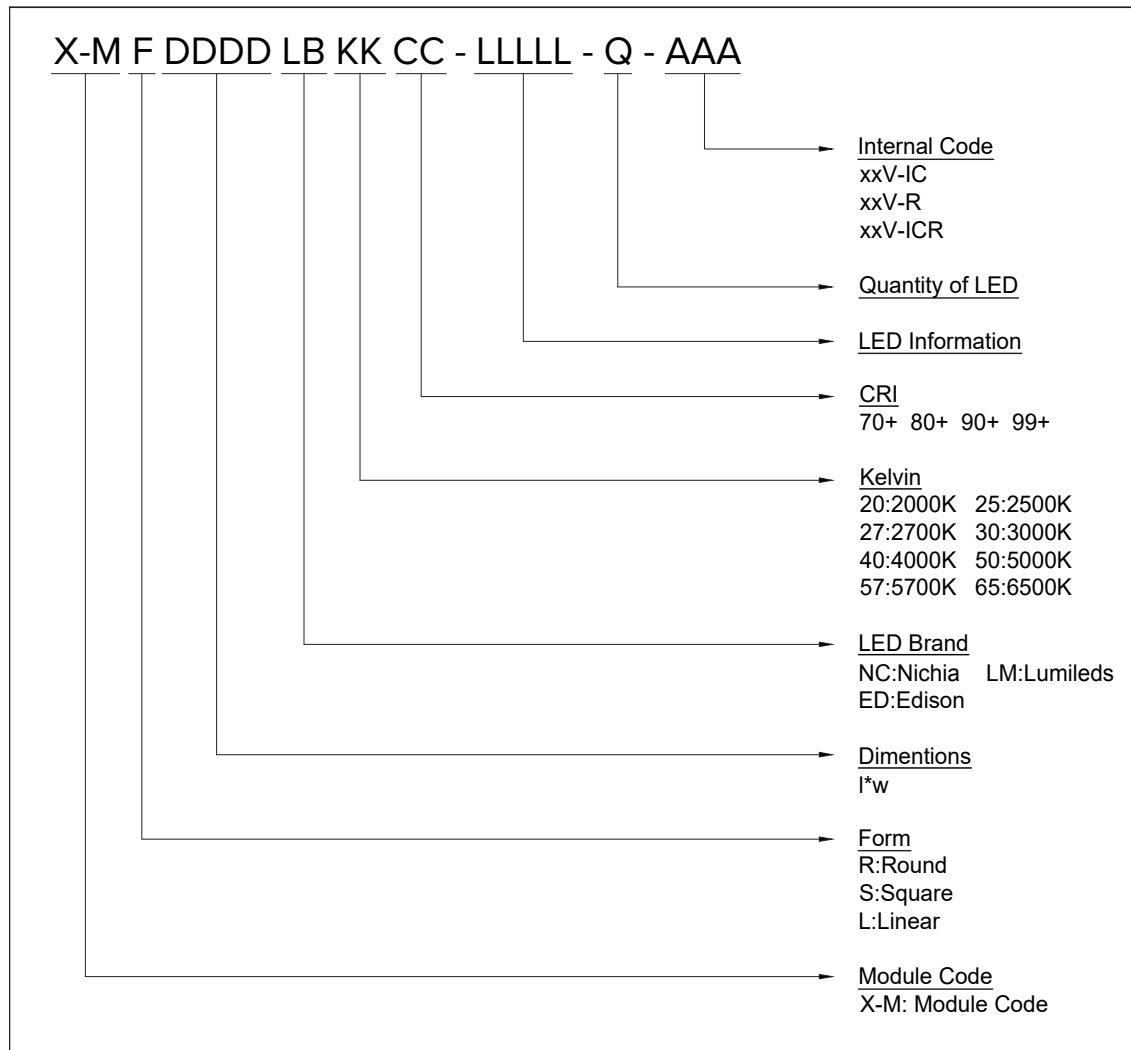
## PHOTOMETRY



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

## ORDERING INFORMATION



## DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION

Common Characteristic [ @Tj : 85°C ] ;			
Module Code	X-MR00110NCxx-NVSW319B-18		
PCB Material	ALU	Electrical Connection	
Operating Temperature (°C)	-40 ~ +100	Parallel	1
Storage Temperature (°C)	-40 ~ +55	Series	18
Thermal Conductivity (W/m-K)	1>	LED Quantity	18
<b>LED NVSW319B_R8000</b>			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	48,96	51,12	53,82
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	17,14	35,78	75,35
Module Light Output (lm)	2.827	5.403	9946
Module Efficiency (lm/W)	165	151	132
<b>LED NVSW219F-V1_R8000</b>			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	80+		
Module Operating Voltage (V)	50,22	52,2	55,08
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	17,58	36,54	77,11
Module Light Output (lm)	2.812	5.335	9716
Module Efficiency (lm/W)	160	146	126
<b>LED NVSW219F_R70</b>			
Correlated Color Temperature (CCT)	4000K		
Color Rendering Index (CRI)	70+		
Module Operating Voltage (V)	50,22	52,2	55,08
Module Operating Current (mA)	350	700	1400
Branch Operating Current (mA)	350	700	1400
Module Power (W)	17,58	36,54	77,11
Module Light Output (lm)	3.164	5.919	10641
Module Efficiency (lm/W)	180	162	138

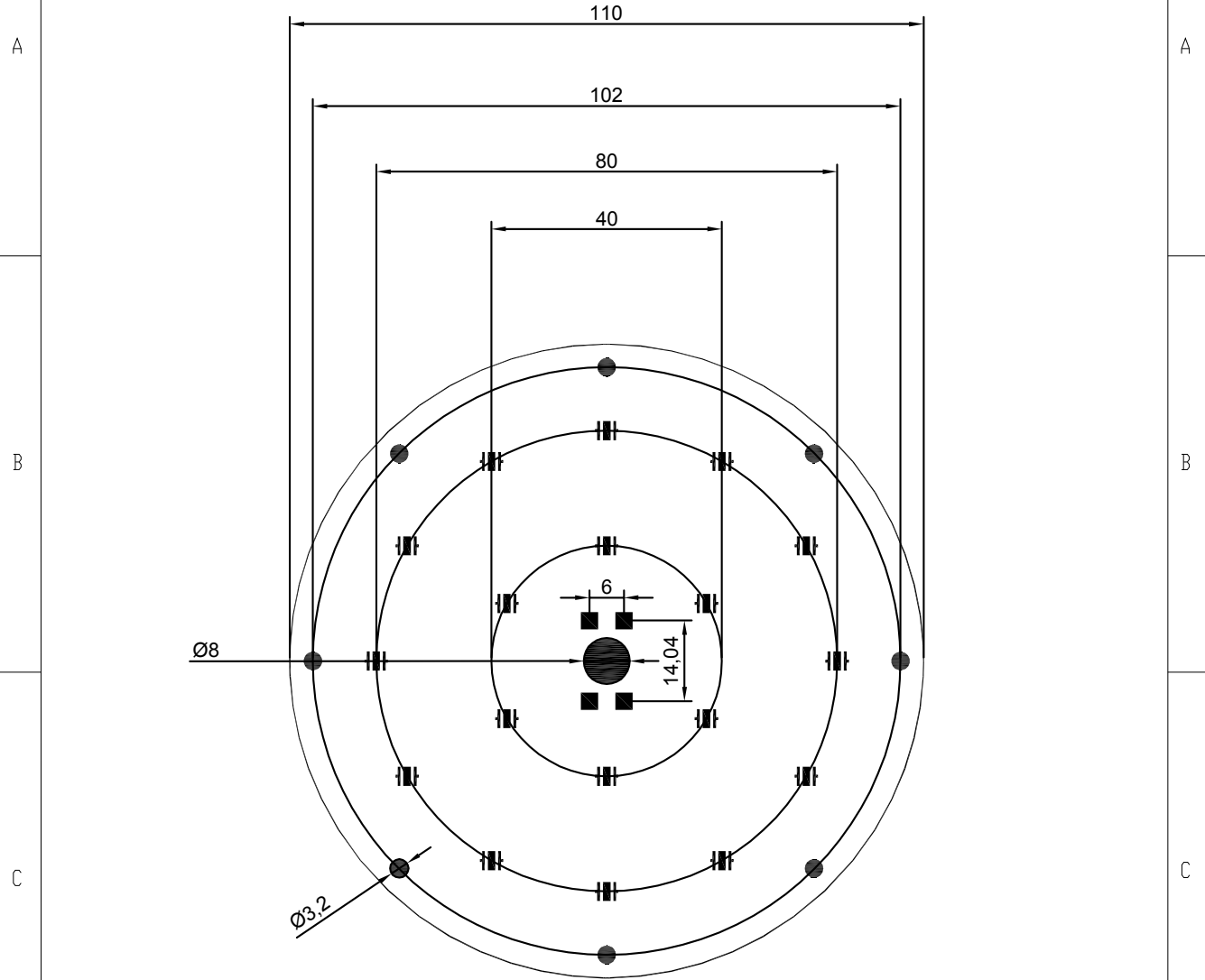
The table below shows how to Module Light Output changes depending on CCT (°K)

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-MR00110NCxx-NVSW319B-18 MECHANICAL DRAWINGS



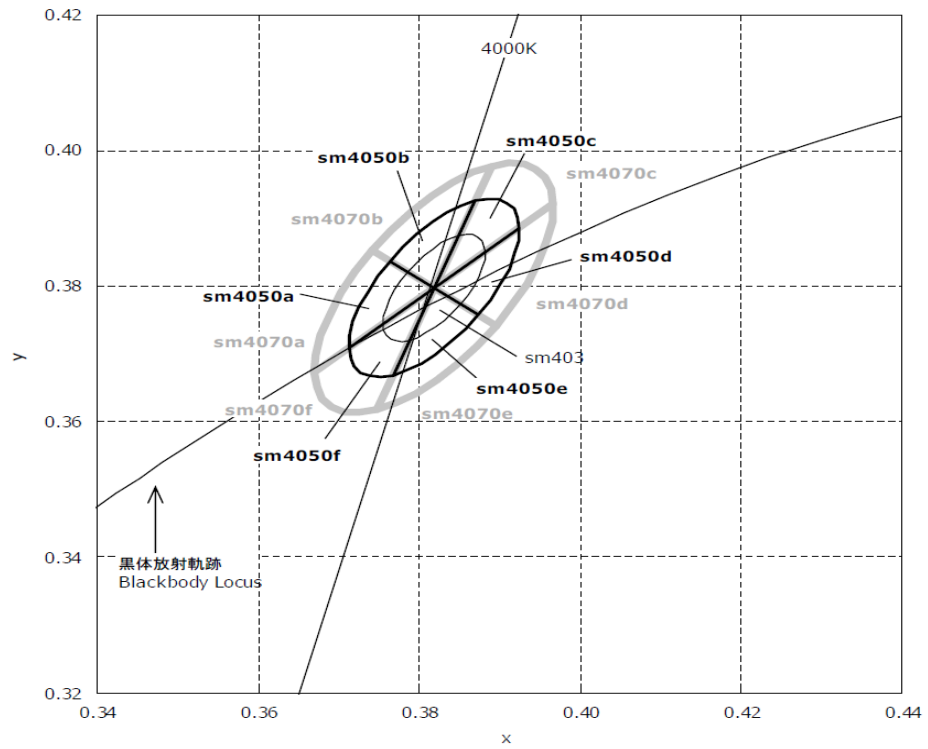
SERBEST ÖLÇÜ TOLERANSLARI -DIN 2768-1 / General Tolerances for linear and angular dimensions ( DIN ISO 2768-1)

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	00	XXX	XXX		
Date	10.12.2019	TLS-001-10R00110NC-18			OLÇEK / SCALE
Sheet					A4
Drawn By	Kaan ALTINTEN				 <b>TD Lighting Solutions</b>
Checked By	Ibrahim OKMEN				
Approved By	Mesut CINAR				

TLS Teknoloji Sanayi ve Dis Ticaret A.S

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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 L70(10K) [hours]	TM-21 Projection L80(10K) [hours]	TM-21 Projection L90(10K) [hours]
1	55	> 50	1050	98.5	0.0006	> 60000	> 60000	> 60000
2	55	> 50	1200	98.5	0.0007	> 60000	> 60000	> 60000
3	55	> 50	1500	98.2	0.0008	> 60000	> 60000	55500
4	85	> 80	1050	98.2	0.0008	> 60000	> 60000	> 60000
5	85	> 80	1200	98.0	0.0010	> 60000	> 60000	> 60000
6	85	> 80	1500	97.4	0.0014	> 60000	> 60000	45800
7	105	> 100	1050	97.6	0.0014	> 60000	> 60000	56600
8	105	> 100	1200	97.2	0.0016	> 60000	> 60000	44600
9	105	> 100	1500	88.2	0.0022	22800	15900	9870

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