TD Lighting Solutions

X-ML30120NCxx-NF2x757GR-6

Linear Series

www.**tlsteknoloji**.com

Revision: **September / 2016**

DATASHEET

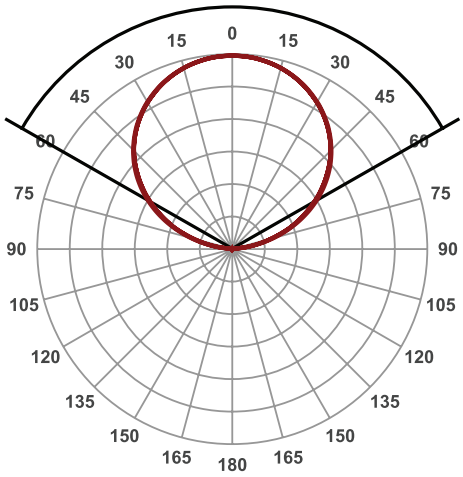
X-ML30120NCxx-NF2x757GR-6

TD Lighting Solutions

SPECIFICATIONS

PHOTOMETRY

Beam angle **120°** (2 C-PLANES)



FEATURES

ORDER CODE X-ML30120NCxx-NF2x757GR-6

Default driving method is constant current input. Ask for alternatives depending on your project.

IES and LDT Files Provided Upon Request

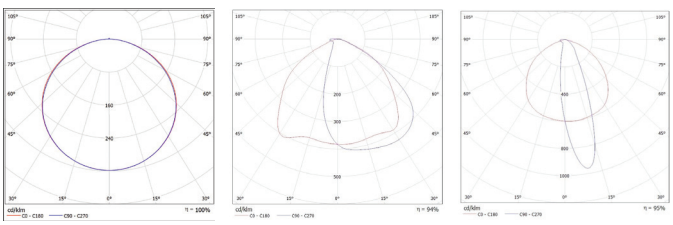
For your orders please call us:
+90 444 27 33

APPLICATIONS

Retail Lighting

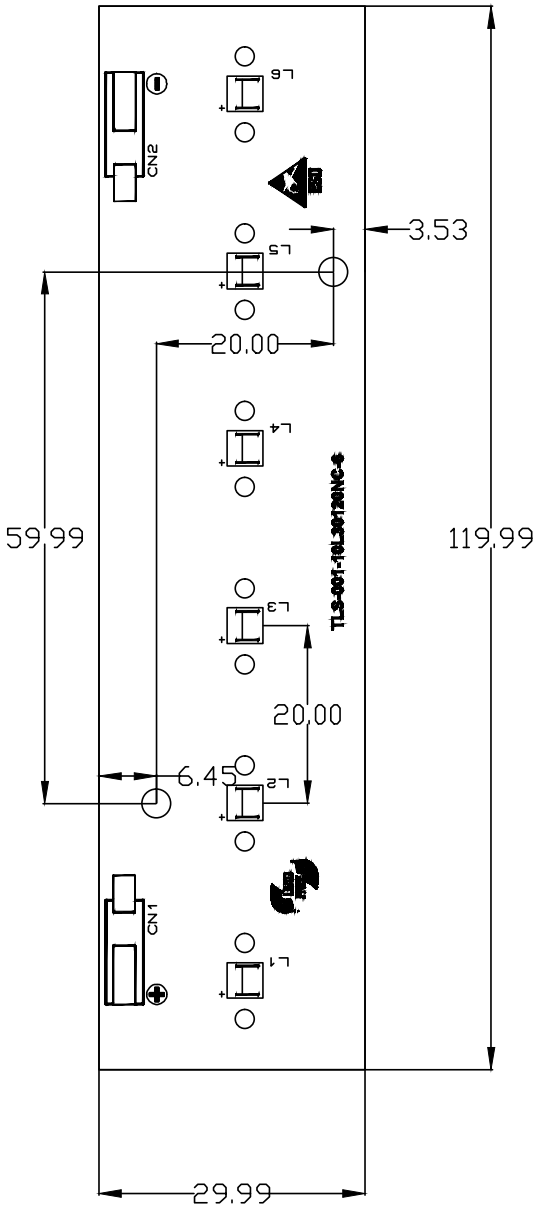
Shelf Lighting

PHOTOMETRY



W/O LENS SHELLY 6X1-N SHELLY 6X1-WAS

MECHANICAL DRAWING



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 : 30320	MALZEME (MATERIAL) PC	AGIRLIK (WEIGHT)		ÖLÇEK / SCALE 1 / 1	A4
Revision : 00					
Date: 19.08.2016	PARÇA NO (PART NO) TLS-001-10L30120NC-6				
Sheet : 1					
Drawn By: M. KAZAKLI					
Checked By: D. SANATSEVER					
Approved By: M. CINAR					

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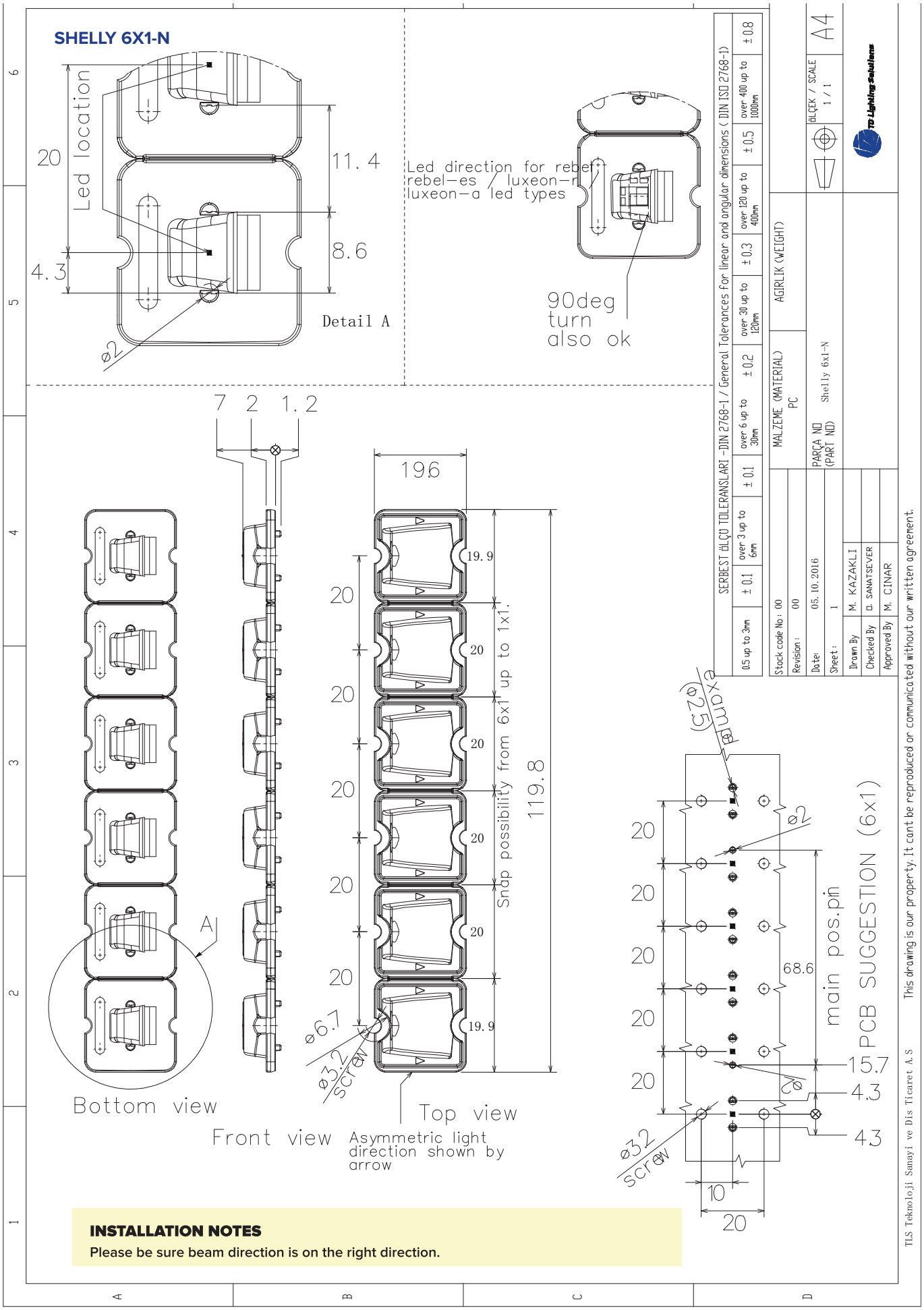
DATASHEET

X-ML30120NCxx-NF2x757GR-6



INSTALLATION NOTES

Please be sure beam direction is on the right direction.

DATASHEET

X-ML30120NCxx-NF2x757GR-6

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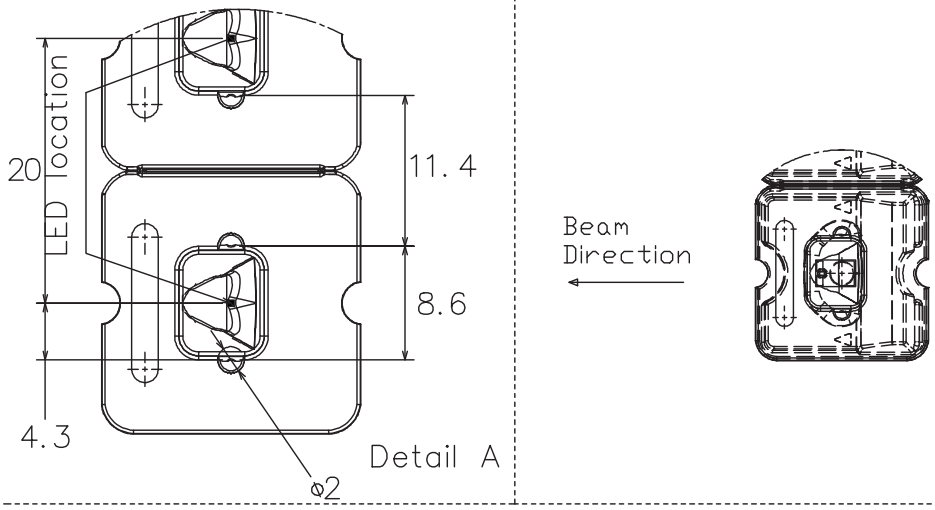
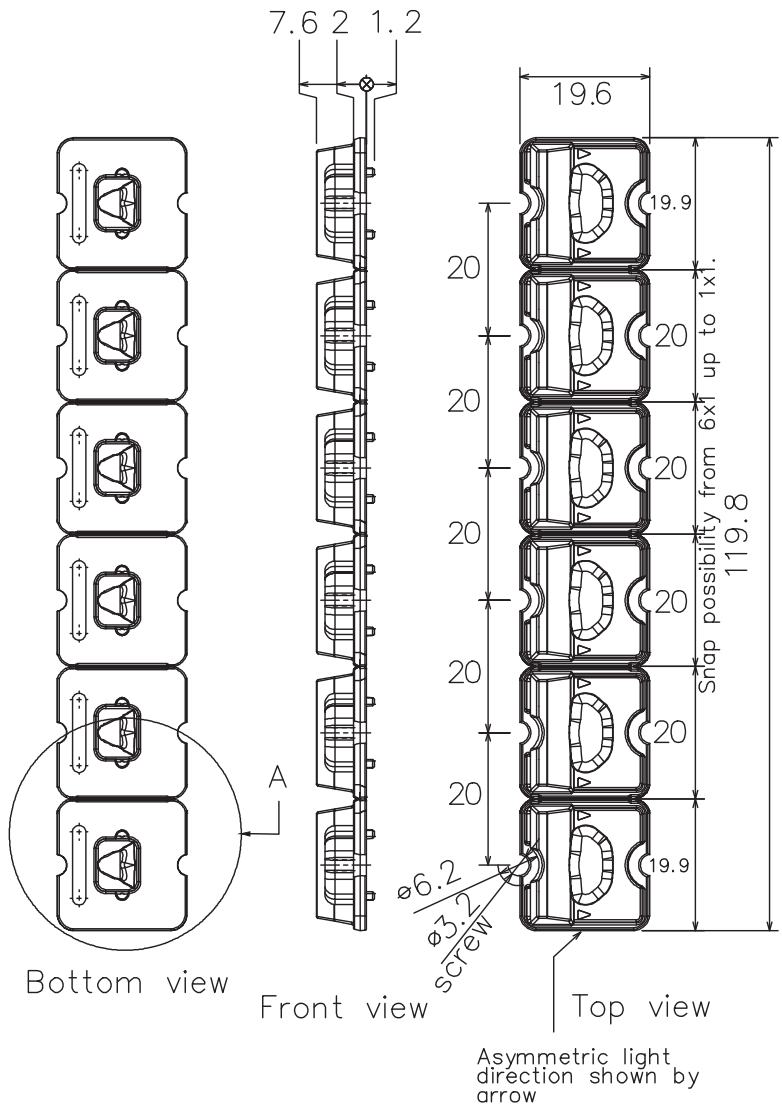
SHELLY 6X1-WAS





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 :	00
Revision :	00
Date:	05.10.2016
Sheet :	1
Drawn By	M. KAZAKLI
Checked By	D. SANATSEVER
Approved By	M. CINAR

MALZEME (MATERIAL) PC

AGIRLIK (WEIGHT)

PARÇA NO (PART NO) Shelly 6x1-WAS

ÖLÇEK / SCALE 1 / 1

A4

TD Lighting Solutions

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INSTALLATION NOTES

Please be sure beam direction is on the right direction.

SPECIFICATION TABLE

Order Code	X-ML30120NCxx-NF2x757GR-6		
LED Type	NF2L757GR 4000°K		
Driving Current	200 mA	300 mA	350 mA
Lumen @25 Tj	543,7	786	900
Lumen/Watt @25Tj	150	138	133
Power (DC) @25 Tj	3,6	5,6	6,7
Lumen @85 Tj	502	726	832
Lumen/Watt @85Tj	146	134	128
Power (DC) @85 Tj	3,4	5,4	6,4

Order Code	X-ML30120NCxx-NFSx757GT-6		
LED Type	NFSL757GT 4000°K		
Driving Current	200 mA	300 mA	350 mA
Lumen @25 Tj	280,6	404,6	464,6
Lumen/Watt @25Tj	156	143	137
Power (DC) @25 Tj	1,7	2,8	3,39
Lumen @85 Tj	258	372,1	426,8
Lumen/Watt @85Tj	148	135	130
Power (DC) @85 Tj	1,7	2,7	3,29

Order Code	X-ML30120NCxx-NF2x757GT-F1-6		
LED Type	NF2L757GT-F1 4000°K		
Driving Current	200 mA	300 mA	350 mA
Lumen @25 Tj	294,1	431,3	498,5
Lumen/Watt @25Tj	173	164	160
Power (DC) @25 Tj	1,69	2,6	3,1
Lumen @85 Tj	272,6	399,8	462,1
Lumen/Watt @85Tj	165	156	153
Power (DC) @85 Tj	1,6	2,5	3

DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION TABLE

Detailed specification table for 2 parallels and 3 series of X-ML30120NCxx-NF2x757GR-6

Common Characteristic [@Tj : 25°C & Ts 25] ;						
LED Brand & Type	X-ML30120NCxx-NF2x757-GR-6			Electrical Connection		
PCB Material	Aluminium					
Operating Temperature (°C)	-40 ~ 100			Parallel		2
Storage Temperature (°C)	-40 ~ 100			Series		3
Thermal Conductivity (W/m-K)	1.5			Total LED Quantity		6
	Specs for Warm White Outputs					
Part Number	**X-ML30120NCxx-NF2x757GR-6VWW**			**X-ML30120NCxx-NF2x757GR-6WW**		
Correlated Color Temperature (CCT)	**2700 K**			3000 K		
Color Rendering Index (CRI)	80 +			80 +		
Module Operating Current (mA)	**200**	**300**	**350**	**200**	**300**	**350**
Branch Operating Current (mA)	100	150	175	100	150	175
Module Operating Voltage (V)	18	18,9	19,38	18	18,9	19,38
Module Power (W)	3,6	5,6	6,78	3,6	5,6	6,78
Module Light Output (lm)	493	714	818	514	744	852,3
Module Efficiency (lm/W)	**137**	**126**	**121**	**142**	**131**	**126**
	Specs for Neutral White Outputs					
Part Number	**X-ML30120NCxx-NF2x757GR-6NW**					
Correlated Color Temperature (CCT)	4000 K					
Color Rendering Index (CRI)	80 +					
Module Operating Current (mA)	**200**	**300**	**350**			
Branch Operating Current (mA)	100	150	175			
Module Operating Voltage (V)	18	18,9	19,38			
Module Power (W)	3,6	5,6	6,78			
Module Light Output (lm)	543,7	786	900,4			
Module Efficiency (lm/W)	**150**	**138**	**133**			
	Specs for Cool White Outputs					
Part Number	**X-ML30120NCxx-NF2x757GR-6CW**			**X-ML30120NCxx-NF2x757GR-6VCW**		
Correlated Color Temperature (CCT)	5000 K			6500 K		
Color Rendering Index (CRI)	70 +			70 +		
Module Operating Current (mA)	**200**	**300**	**350**	**200**	**300**	**350**
Branch Operating Current (mA)	100	150	175	100	150	175
Module Operating Voltage (V)	18	18,9	19,38	18	18,9	19,38
Module Power (W)	3,6	5,6	6,78	3,6	5,6	6,78
Module Light Output (lm)	585,2	845,2	967,8	581	839	961
Module Efficiency (lm/W)	**162**	**149**	**143**	**161**	**148**	**142**

DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION TABLE

Detailed specification table for 2 parallels and 3 series of X-ML30120NCxx-NFSx757GT-6

Common Characteristic [@Tj : 25°C & Ts 25] ;						
LED Brand & Type	X-ML30120NCxx-NFSx757GT-6			Electrical Connection		
PCB Material	Aluminium					
Operating Temperature (°C)	-40 ~ 100			Parallel	2	
Storage Temperature (°C)	-40 ~ 100			Series	3	
Thermal Conductivity (W/m-K)	1.5			Total LED Quantity	6	
	Specs for Warm White Outputs					
Part Number	**X-ML30120NCxx-NFSx757GT-6VWW**			**X-ML30120NCxx-NFSx757GT-6WW**		
Correlated Color Temperature (CCT)	**2700 K**			3000 K		
Color Rendering Index (CRI)	80 +			80 +		
Module Operating Current (mA)	**200**	**300**	**350**	**200**	**300**	**350**
Branch Operating Current (mA)	100	150	175	100	150	175
Module Operating Voltage (V)	8,9	9,4	9,7	8,9	9,4	9,7
Module Power (W)	1,7	2,8	3,39	1,7	2,8	3,39
Module Light Output (lm)	256,7	371,1	426,1	268,2	386,7	443,7
Module Efficiency (lm/W)	**143**	**131**	**125**	**149**	**136**	**131**
	Specs for Neutral White Outputs					
Part Number	**X-ML30120NCxx-NFSx757GT-6NW**					
Correlated Color Temperature (CCT)	4000 K					
Color Rendering Index (CRI)	80 +					
Module Operating Current (mA)	**200**	**300**	**350**			
Branch Operating Current (mA)	100	150	175			
Module Operating Voltage (V)	8,9	9,4	9,7			
Module Power (W)	1,7	2,8	3,39			
Module Light Output (lm)	280,6	404,6	464,2			
Module Efficiency (lm/W)	**156**	**143**	**137**			
	Specs for Cool White Outputs					
Part Number	**X-ML30120NCxx-NFSx757GT-6CW**			**X-ML30120NCxx-NFSx757GT-6VCW**		
Correlated Color Temperature (CCT)	5000 K			6500 K		
Color Rendering Index (CRI)	70 +			70 +		
Module Operating Current (mA)	**200**	**300**	**350**	**200**	**300**	**350**
Branch Operating Current (mA)	100	150	175	100	150	175
Module Operating Voltage (V)	8,9	9,4	9,7	8,9	9,4	9,7
Module Power (W)	1,7	2,8	3,39	1,7	2,8	3,39
Module Light Output (lm)	307,4	444,9	551,4	297,6	430,8	495,1
Module Efficiency (lm/W)	**171**	**157**	**151**	**166**	**152**	**146**

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DRIVING CURRENT VS LUMEN OUTPUT SPECIFICATION TABLE

Detailed specification table for 2 parallels and 3 series of X-ML30120NCxx-NF2x757GT-F1-6

Common Characteristic [@Tj : 25°C & Ts 25] ;						
LED Brand & Type	X-ML30120NCxx-NF2x757GT-F1-6			Electrical Connection		
PCB Material	Aluminium					
Operating Temperature (°C)	-40 ~ 100			Parallel		2
Storage Temperature (°C)	-40 ~ 100			Series		3
Thermal Conductivity (W/m-K)	1.5			Total LED Quantity		6
	Specs for Warm White Outputs					
Part Number	**X-ML30120NCxx-NF2x757GT-F1-6VWW**			**X-ML30120NCxx-NF2x757GT-F1-6WW**		
Correlated Color Temperature (CCT)	**2700 K**			3000 K		
Color Rendering Index (CRI)	80 +			80 +		
Module Operating Current (mA)	**200**	**300**	**350**	**200**	**300**	**350**
Branch Operating Current (mA)	100	150	175	100	150	175
Module Operating Voltage (V)	8,48	8,75	8,89	8,48	8,75	8,89
Module Power (W)	1,69	2,6	3,1	1,69	2,6	3,1
Module Light Output (lm)	269,7	395,6	457,3	281,4	412,8	477,1
Module Efficiency (lm/W)	**159**	**151**	**147**	**166**	**157**	**153**
	Specs for Neutral White Outputs					
Part Number	**X-ML30120NCxx-NF2x757GT-F1-6NW**					
Correlated Color Temperature (CCT)	4000 K					
Color Rendering Index (CRI)	80 +					
Module Operating Current (mA)	**200**	**300**	**350**			
Branch Operating Current (mA)	100	150	175			
Module Operating Voltage (V)	8,4	8,7	8,88			
Module Power (W)	1,6	2,6	3,1			
Module Light Output (lm)	294,1	431,3	498,5			
Module Efficiency (lm/W)	**173**	**164**	**160**			
	Specs for Cool White Outputs					
Part Number	**X-ML30120NCxx-NF2x757GT-F1-6CW**			**X-ML30120NCxx-NF2x757GT-F1-6VCW**		
Correlated Color Temperature (CCT)	5000 K			6500 K		
Color Rendering Index (CRI)	70 +			70 +		
Module Operating Current (mA)	**200**	**300**	**350**	**200**	**300**	**350**
Branch Operating Current (mA)	100	150	175	100	150	175
Module Operating Voltage (V)	8,48	8,75	8,89	8,48	8,75	8,89
Module Power (W)	1,69	2,6	3,1	1,69	2,6	3,1
Module Light Output (lm)	323,2	474,2	547,9	314,1	461	532,6
Module Efficiency (lm/W)	**191**	**181**	**176**	**185**	**176**	**171**

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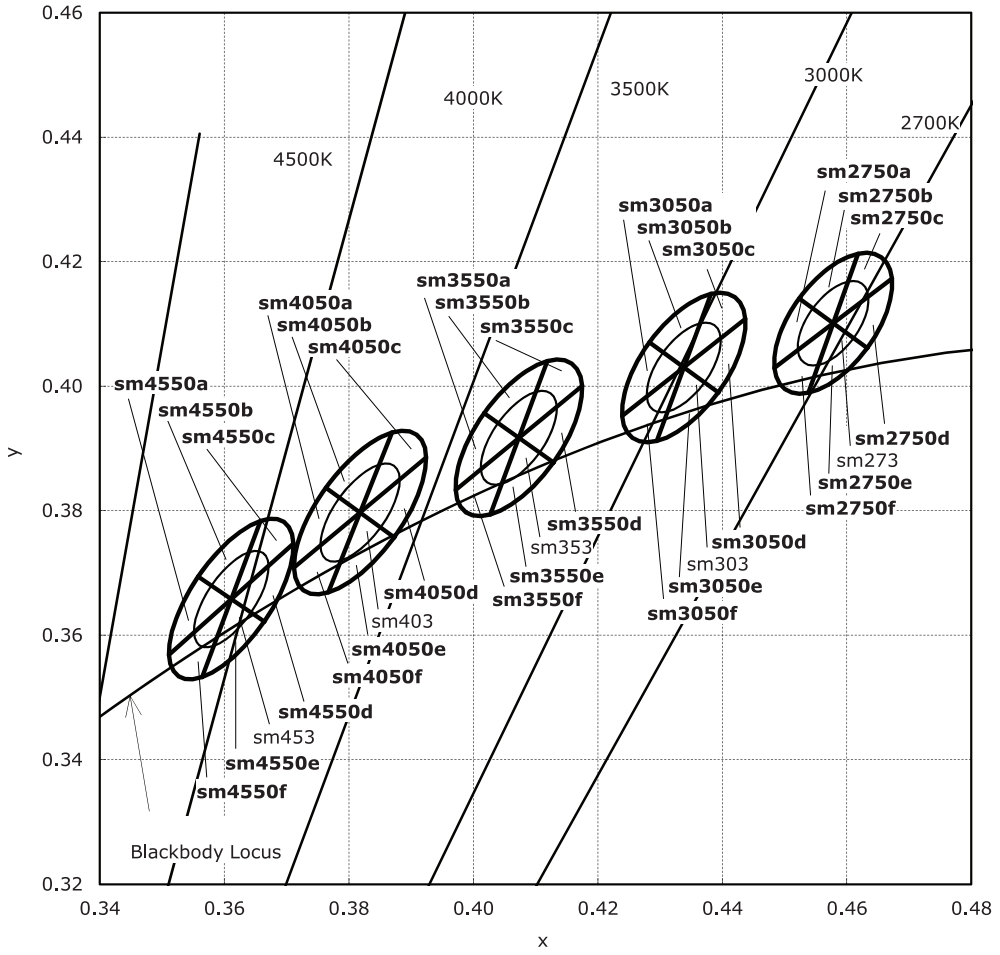
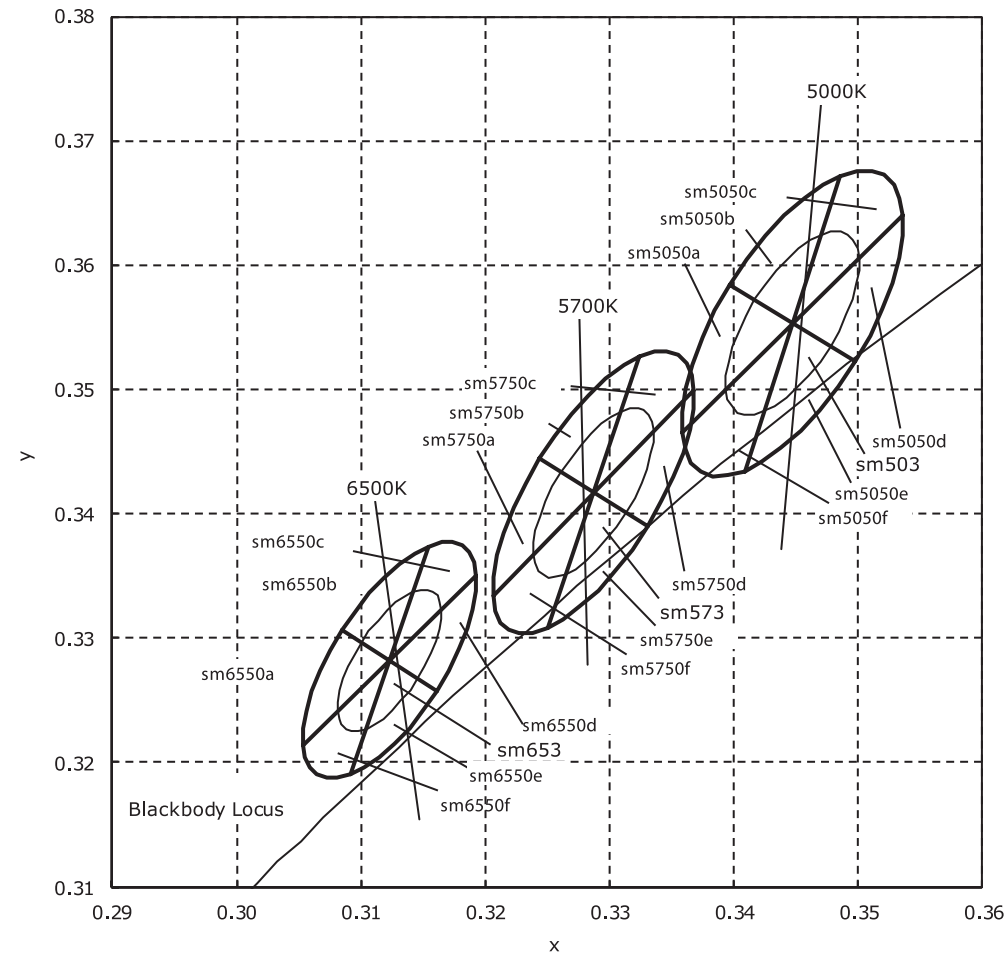
CCT AND BINNING INFORMATION





LIFETIME PROJECTION & WORST CONDITION PERFORMANCE

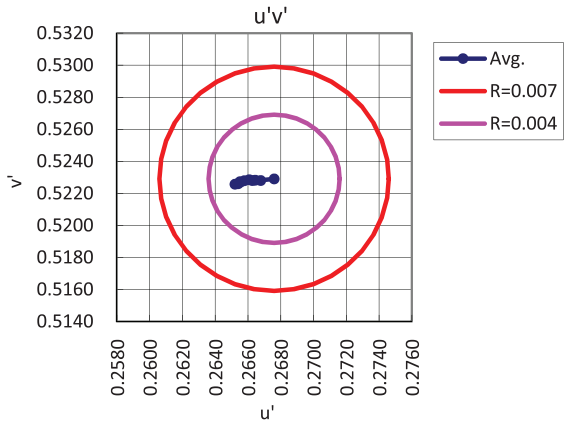
MODEL NUMBER: **NF2L757GR**

Data Set	Case Temperature [T_S]	Ambient Temperature [T_A]	Drive Current [I_F]	Lumen Maintenance at 6,000 hours	Chromaticity Shift (Δu'v') at 6,000 hours	TM-21 Projection L_{70}(6K)
1	55 °C	> 50 °C	100 mA	97.7 %	0.0016	> 36000 hours
2	55 °C	> 50 °C	150 mA	97.5 %	0.0021	> 36000 hours
3	85 °C	> 80 °C	100 mA	95.2 %	0.0019	> 36000 hours
4	85 °C	> 80 °C	150 mA	94.7 %	0.0024	> 36000 hours

Data Set 4 : 85 °C, 150 mA

Actual Case Temperature [T_S]	87.4 °C
Actual Ambient Temperature [T_A]	84.7 °C
Drive Current [I_F]	150 mA
Measurement Current	150 mA

NOTES:
T_S and T_A were measured during initial setup.



Test duration used	1000 h	to	6000 h
B	0.9963		
α	8.3685E-06		
R^2	0.9989		
Calculated L_{70} (6K)	42200		hours
Reported L_{70} (6K)	> 36000		hours

Curve-fit equation:

$$\Phi(t)=B\exp(-\alpha t)$$

Lumen maintenance life eqation:

$$L_{70}=\ln(B/0.7)/\alpha$$

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CONTACT

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