



*"Creates Intelligent Photons"*

Fotonik Lighting Solutions  
LED Modules

2021

CODE DESCRIPTION OF LED MODULES 3

4 CODE DESCRIPTION OF PCB's

INDOOR LIGHTING SOLUTIONS 5

33 RGBW LIGHTING SOLUTIONS

OUTDOOR LIGHTING SOLUTIONS 37

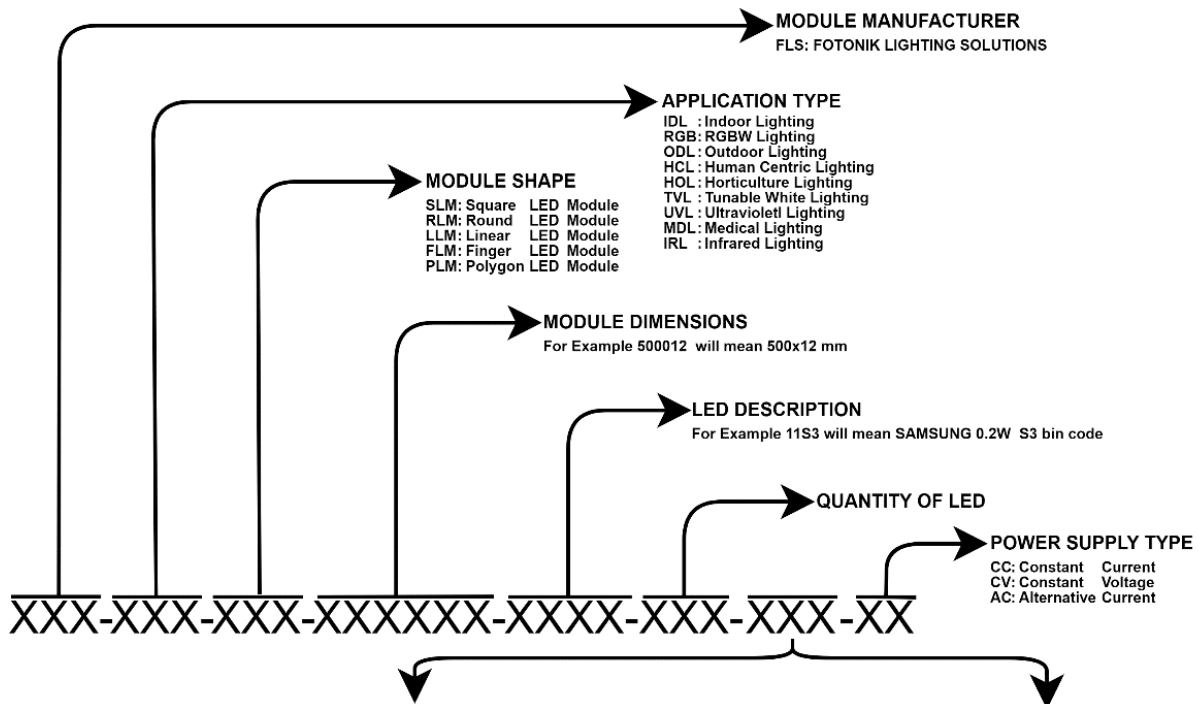
53 HUMAN CENTRIC LIGHTING SOLUTIONS

HORTICULTURE LIGHTING SOLUTIONS 57

66 TUNABLE WHITE LIGHTING SOLUTIONS

ULTRAVIOLET LIGHTING SOLUTIONS 71

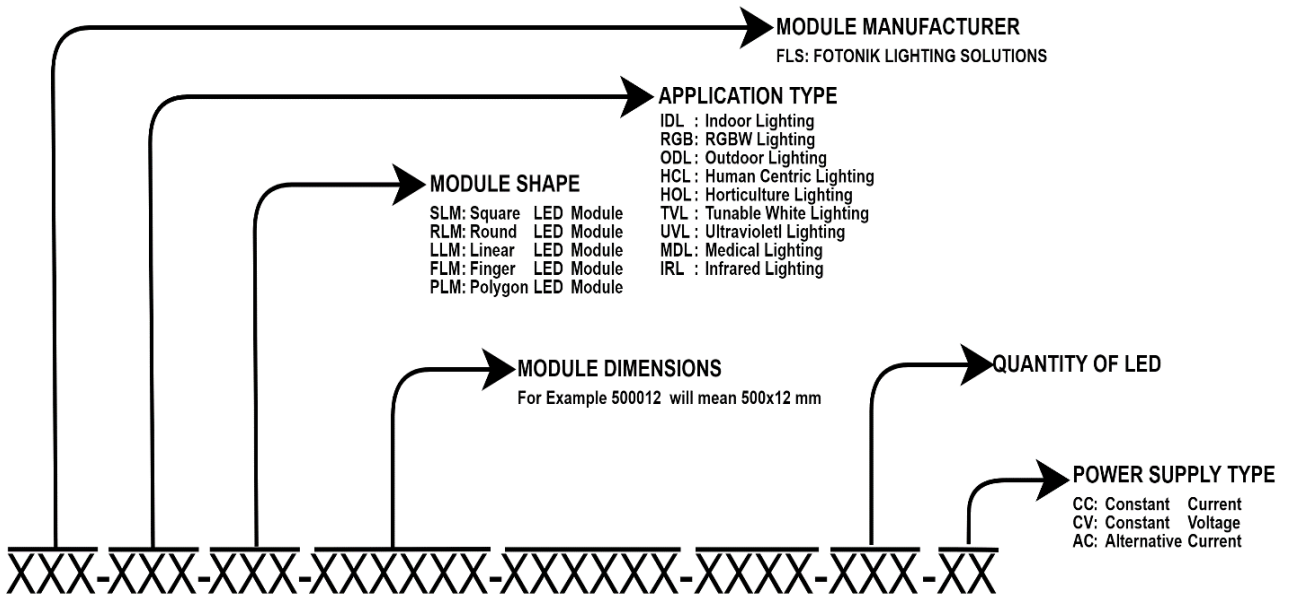
# Code Description of LED Modules



CRI	CODE	CCT	CODE
70 CRI	7	2700 °K	27
80 CRI	8	3000 °K	30
90 CRI	9	4000°K	40
93 CRI	N	5000 °K	50
94 CRI	O	6500°K	60
95 CRI	P	TW	Tunable White
97 CRI	R	CL	Circadian Light
98 CRI	S	HC	Horticulture
100 CRI	T		
Fish	F		
Meat	M		
Bakery	B		
Vegetable	V		

For Medical, Ultraviolet, Infrared and Horticulture modules: Wavelength will be written. For example 278 will mean 278 nm UVC

# Code Description of PCBs



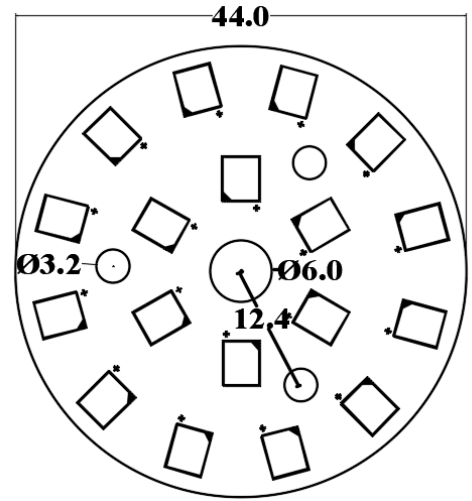
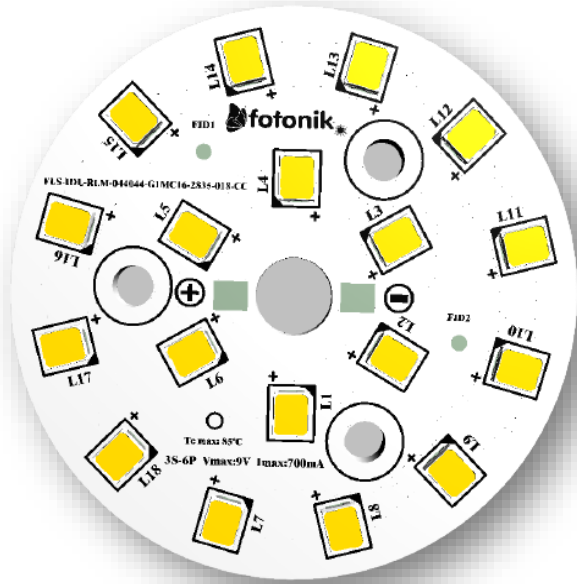
Pb free	Layer Count	PCB Material	Code	Thickness	Code
G=Green	1	CEM1	C1	0.8//2.0mm	12
P=Leaded	2	CEM3	C3	0.8//2.0mm	16
	1	FR4	F4	0.8//2.0mm	8
	1	MPCB	MC	0.8//2.0mm	20
	1	CRPCB	CR	0.8//2.0mm	09
	1	IMSPCB	IM	0.8//2.0mm	15

LED PACKET DESCRIPTION



## INDOOR LIGHTING SOLUTIONS





## FLS-IDL-RLM-044044-12RJ-018-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 3 Series 6 Parallel.
- Luminous flux range from 411,3 lm to 1238 lm
- Efficacy of the module up to 158 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-RLM-044044-G1MC16-2835-018-CC

**SAMSUNG** LED's inside.

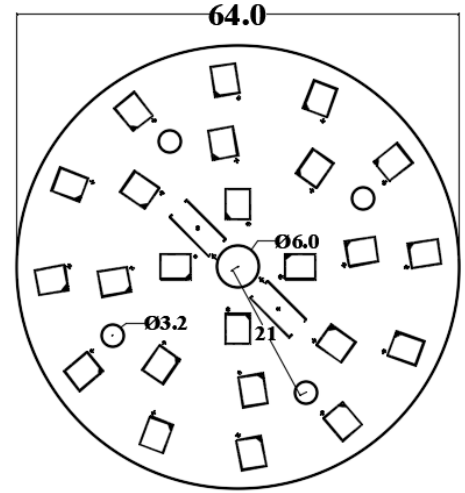
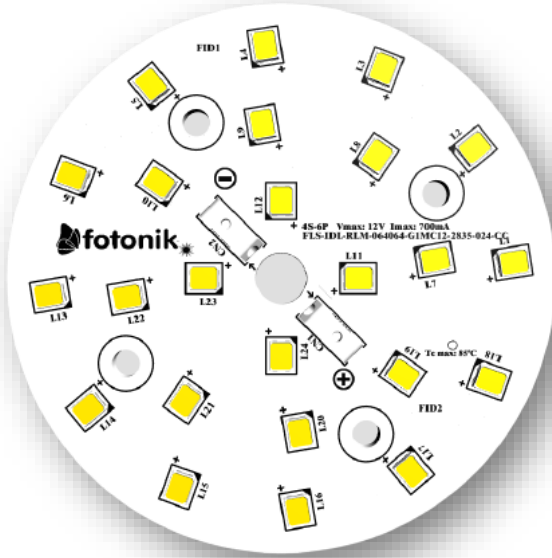
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	18	18
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	8,79	8,94
Module Operating Current (mA)	300	900
Branch Operating Current (mA)	50	150
Module Power (W)	2,6	8,1
Module Light Output (lm)	411,3	1238
Module Efficacy (lm/W)	158	153,7
Dimension	44 mm x 44 mm	
Compatible Driver	3W-300mA	9W-900mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1,013	1



## FLS-IDL-RLM-064064-12RJ-024-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 4 Series 6 Parallel.
- Luminous flux range from 639 lm to 1651 lm
- Efficacy of the module up to 156 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-RLM-064064-G1MC16-2835-024-CC

**SAMSUNG** LED's inside.

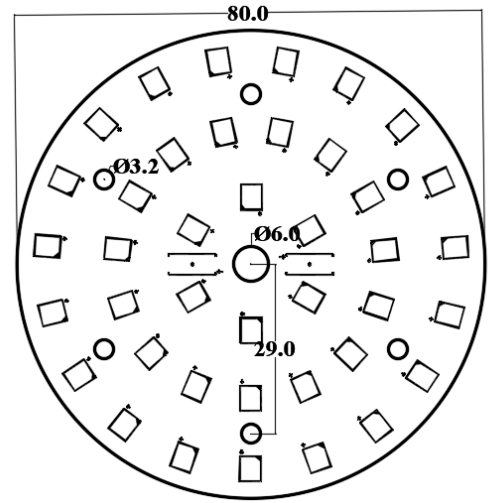
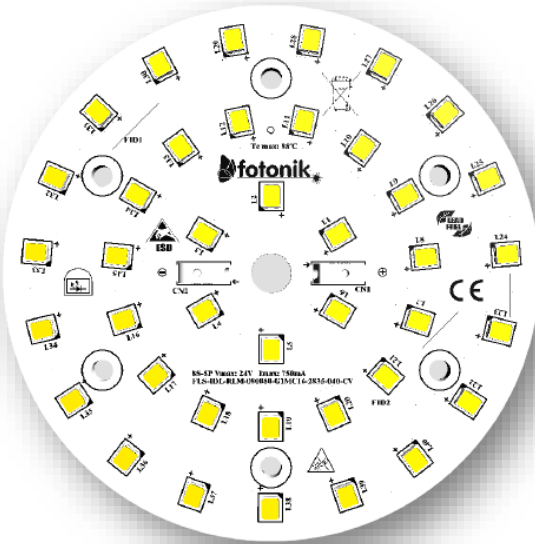
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	24	24
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	11,72	11,92
Module Operating Current (mA)	350	900
Branch Operating Current (mA)	58,3	150
Module Power (W)	4,1	10,7
Module Light Output (lm)	639	1651
Module Efficacy (lm/W)	156	153,7
Dimension	64 mm x 64 mm	
Compatible Driver	5W-350mA	11W-900mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1,013	1



## FLS-IDL-RLM-080080-12RJ-040-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 8 Series 5 Parallel.
- Luminous flux range from 916 lm to 2402 lm
- Efficacy of the module up to 156 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-RLM-080080-G1MC16-2835-040-CC

**SAMSUNG** LED's inside.

### Module Specifications

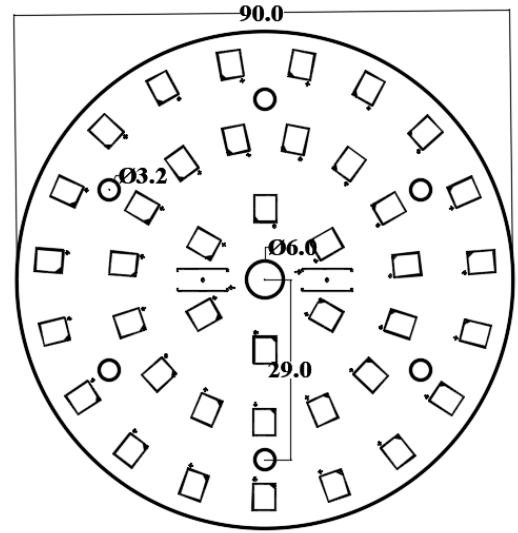
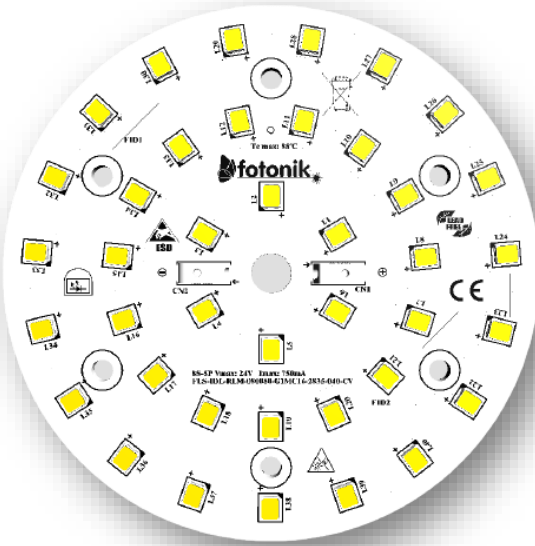
LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	40	40
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	24,8	23,7
Module Operating Current (mA)	250	700
Branch Operating Current (mA)	50	140
Module Power (W)	5,9	16,6
Module Light Output (lm)	916	2402
Module Efficacy (lm/W)	156	144
Dimension	80 mm x 80 mm	
Compatible Driver	8W-250mA	20W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1





## FLS-IDL-RLM-090090-12RJ-040-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 8 Series 5 Parallel.
- Luminous flux range from 916 lm to 2402 lm
- Efficacy of the module up to 156 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-RLM-090090-G1MC16-2835-040-CC

**SAMSUNG** LED's inside.

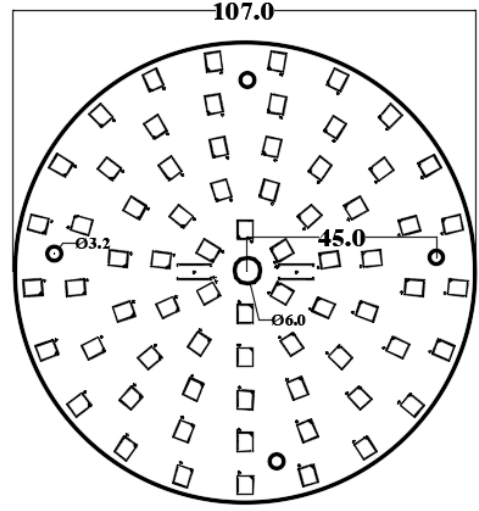
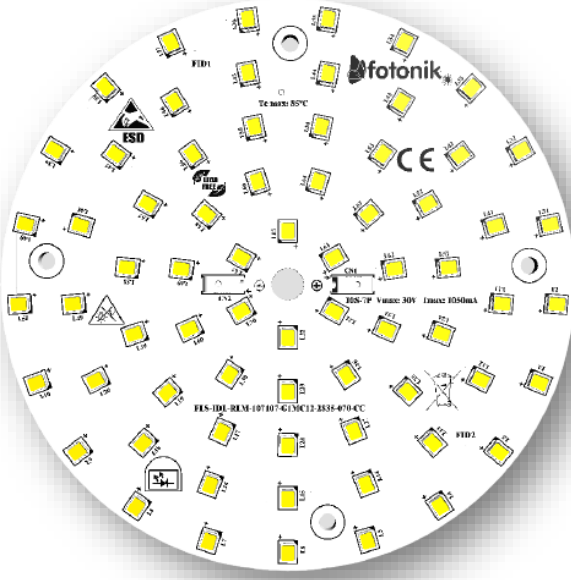
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	40	40
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	24,8	23,7
Module Operating Current (mA)	250	700
Branch Operating Current (mA)	50	140
Module Power (W)	5,9	16,6
Module Light Output (lm)	916	2402
Module Efficacy (lm/W)	156	144
Dimension	80 mm x 80 mm	
Compatible Driver	8W-250mA	20W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-RLM-107107-12RJ-070-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 10 Series 7 Parallel.
- Luminous flux range from 1602 lm to 4819 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-RLM-107107-G1MC16-2835-070-CC

**SAMSUNG** LED's inside.

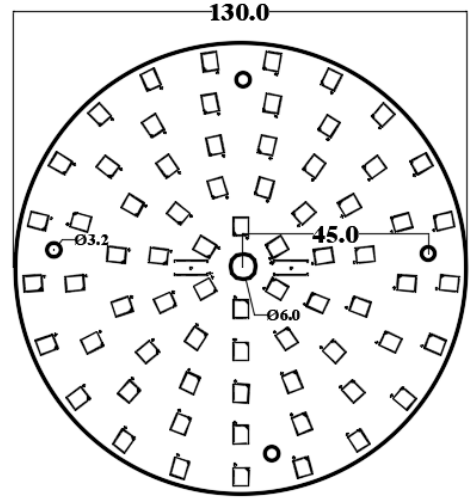
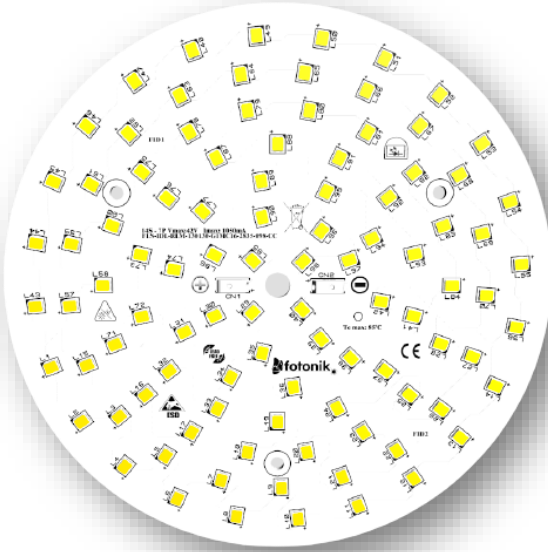
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	70	70
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	31	30
Module Operating Current (mA)	350	1050
Branch Operating Current (mA)	50	150
Module Power (W)	10,3	30,3
Module Light Output (lm)	1602	4819
Module Efficacy (lm/W)	156	160
Dimension	107mm x 107mm	
Compatible Driver	12W-350mA	35W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-RLM-130130-12RJ-098-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 14 Series 7 Parallel.
- Luminous flux range from 2243 lm to 6747 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-RLM-130130-G1MC16-2835-098-CC

**SAMSUNG** LED's inside.

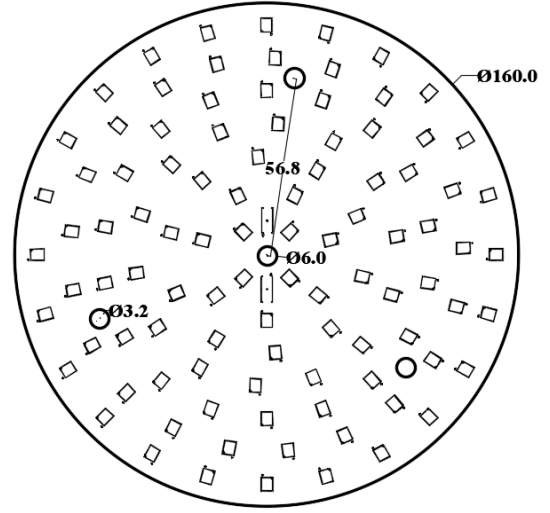
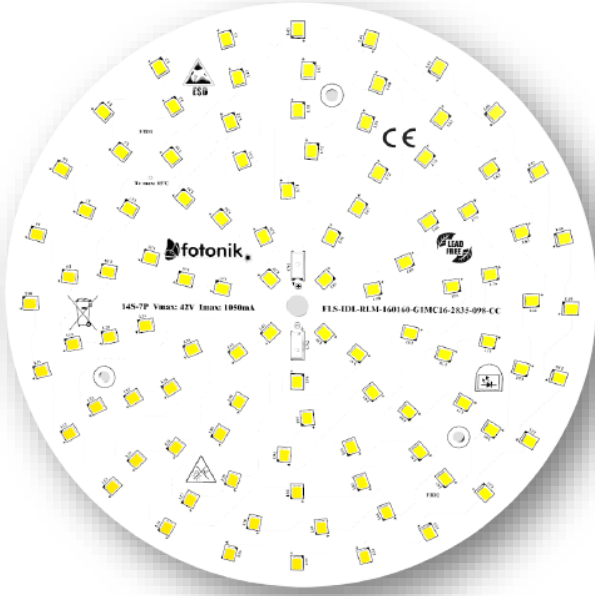
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	98	98
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	43,4	42
Module Operating Current (mA)	350	1050
Branch Operating Current (mA)	50	150
Module Power (W)	14,5	42,4
Module Light Output (lm)	2243	6747
Module Efficacy (lm/W)	156	160
Dimension	130mm x 130mm	
Compatible Driver	16W-350mA	50W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-RLM-160160-12RJ-098-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 14 Series 7 Parallel.
- Luminous flux range from 2243 lm to 6747 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-RLM-160160-G1MC16-2835-098-CC

**SAMSUNG** LED's inside.

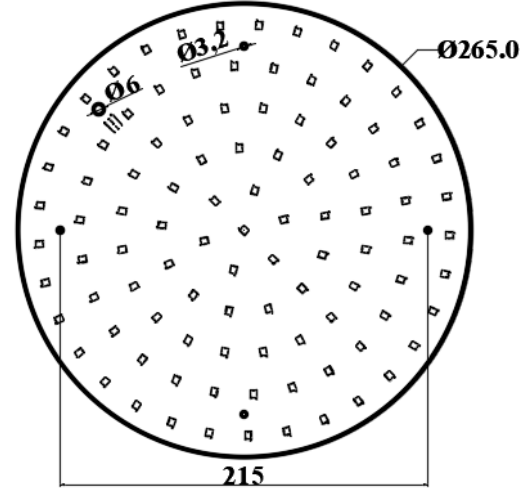
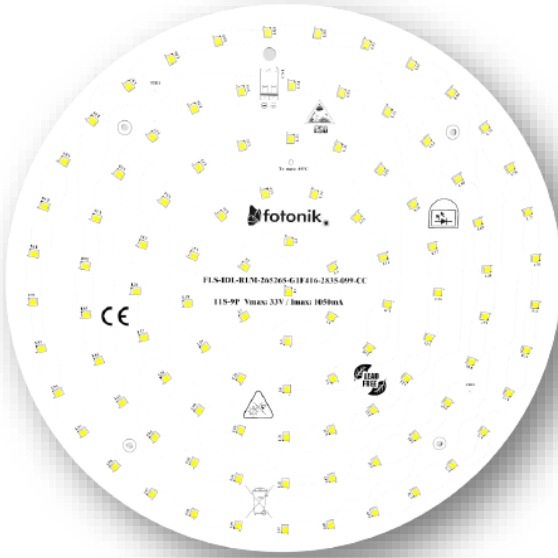
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	98	98
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	43,4	42
Module Operating Current (mA)	350	1050
Branch Operating Current (mA)	50	150
Module Power (W)	14,5	42,4
Module Light Output (lm)	2243	6747
Module Efficacy (lm/W)	156	160
Dimension	160mm x 160mm	
Compatible Driver	16W-350mA	50W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-RLM-265265-12RJ-099-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 11 Series 9 Parallel.
- Luminous flux range from 2373 lm to 5375 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- FR4 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-RLM-265265-G1F416-2835-099-CC

**SAMSUNG** LED's inside.

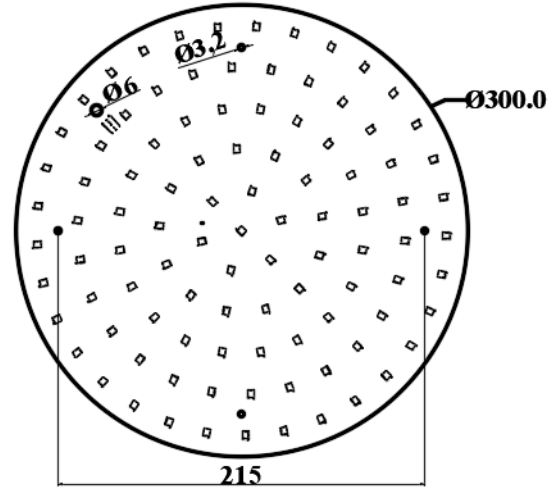
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	99	99
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	32,23	32,12
Module Operating Current (mA)	500	1050
Branch Operating Current (mA)	55,5	116,6
Module Power (W)	16,2	33,6
Module Light Output (lm)	2373	5375
Module Efficacy (lm/W)	146	160
Dimension	265mm x 265mm	
Compatible Driver	20W-500mA	40W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-RLM-300300-12RJ-099-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 11 Series 9 Parallel.
- Luminous flux range from 2373 lm to 5375 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- FR4 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-RLM-300300-G1F416-2835-099-CC

**SAMSUNG** LED's inside.

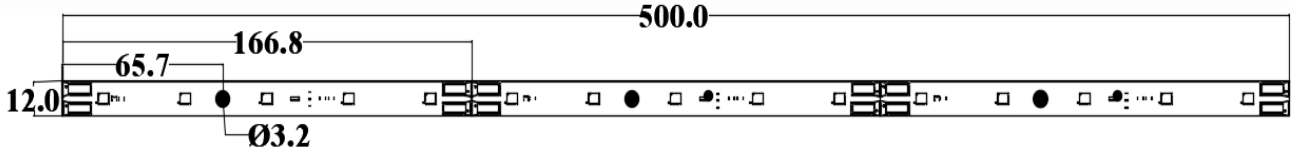
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	99	99
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	32,23	32,12
Module Operating Current (mA)	500	1050
Branch Operating Current (mA)	55,5	116,6
Module Power (W)	16,2	33,6
Module Light Output (lm)	2373	5375
Module Efficacy (lm/W)	146	160
Dimension	300mm x 300mm	
Compatible Driver	20W-500mA	40W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-500012-12RJ-015-840-CV SPECIFICATIONS

- Default driving method is constant voltage input as 24V
- This driving method is optional, you can choose constant current with IC or resistor driven.
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 5 Series 3 Parallel.
- Luminous flux range from 330 lm to 363 lm
- Efficacy of the module up to 174 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	15	15
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	24	24
Module Operating Current (mA)	150	150
Branch Operating Current (mA)	50	50
Module Power (W)	3.6	3.6
Module Light Output (lm)	330	363
Module Efficacy (lm/W)	150	174
Dimension	500mm x 12mm	
Compatible Driver	Constant Voltage (24V)	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

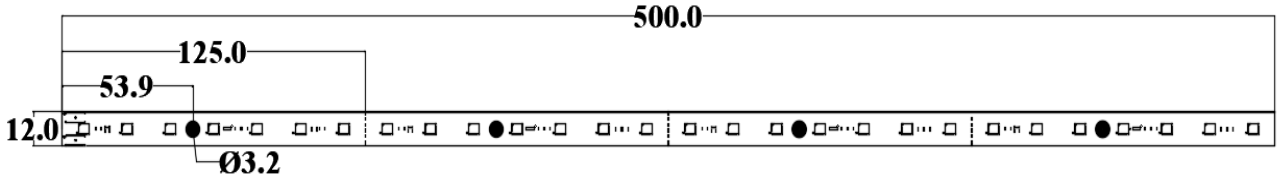
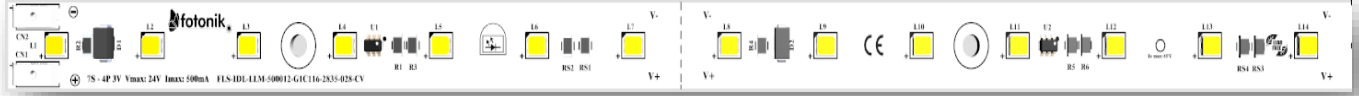
You may tell us the code below for ordering only PCB

FLS-IDL-LLM-500012-G1MC16-2835-015-CV

**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-500012-12RJ-028-840-CV SPECIFICATIONS

- Can be driving with constant current or constant voltage according to request.
- Default driving method is constant voltage input as 24V
- This driving method is optional, you can choose constant current with IC or resistor driven.
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 7 Series 4 Parallel.
- Luminous flux range from 641 lm to 1005 lm
- Efficacy of the module up to 139 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-LLM-500012-G1MC16-2835-028-CV

**SAMSUNG** LED's inside.

## Module Specifications

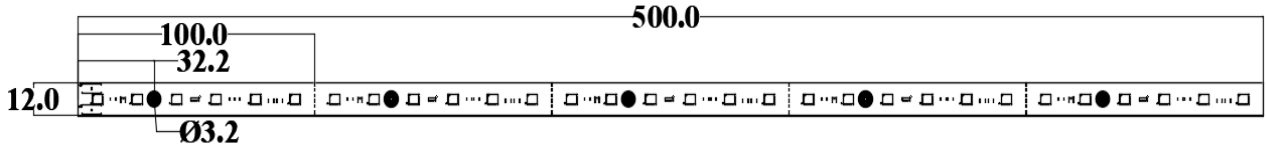
LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	28	28
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	24	24
Module Operating Current (mA)	200	300
Branch Operating Current (mA)	50	75
Module Power (W)	4,8	7,2
Module Light Output (lm)	641	1005
Module Efficacy (lm/W)	133	139.5
Dimension	500mm x 12mm	
Compatible Driver	Constant Voltage (24V)	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1





## FLS-IDL-LLM-500012-12RJ-030-840-CV

### SPECIFICATIONS

- Default driving method is constant voltage input as 24V
- This driving method is optional, you can choose constant current with IC or resistor driven.
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 6 Series 5 Parallel.
- Luminous flux range from 687 lm to 868 lm
- Efficacy of the module up to 120 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-LLM-500012-G1MC16-2835-030-CV

**SAMSUNG** LED's inside.

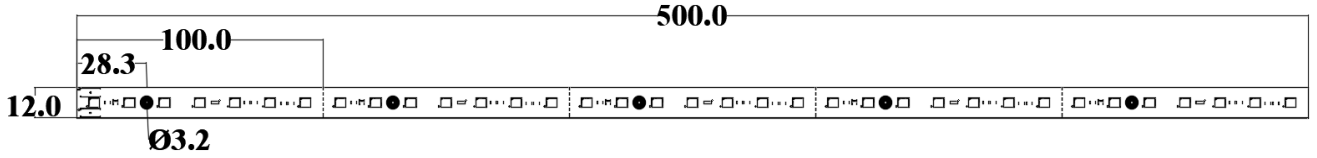
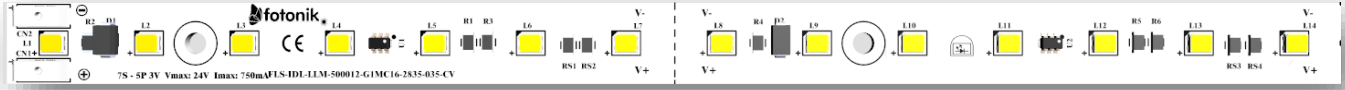
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	30	30
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	24	24
Module Operating Current (mA)	250	300
Branch Operating Current (mA)	50	60
Module Power (W)	6	7.2
Module Light Output (lm)	687	868
Module Efficacy (lm/W)	114,5	120.5
Dimension	500mm x 12mm	
Compatible Driver	Constant Voltage (24V)	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-500012-12RJ-035-840-CV SPECIFICATIONS

- Default driving method is constant voltage input as 24V
- This driving method is optional, you can choose constant current with IC or resistor driven.
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 7 Series 5 Parallel.
- Luminous flux range from 801 lm to 1257 lm
- Efficacy of the module up to 139 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-LLM-500012-G1MC16-2835-035-CV

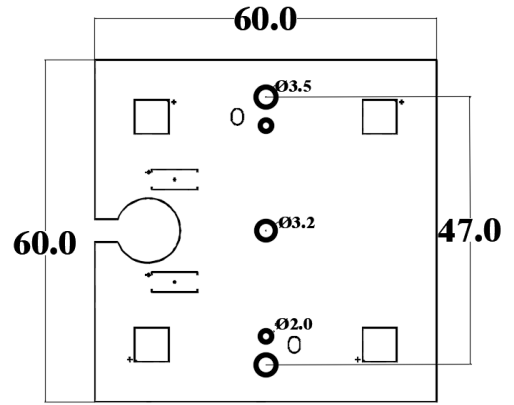
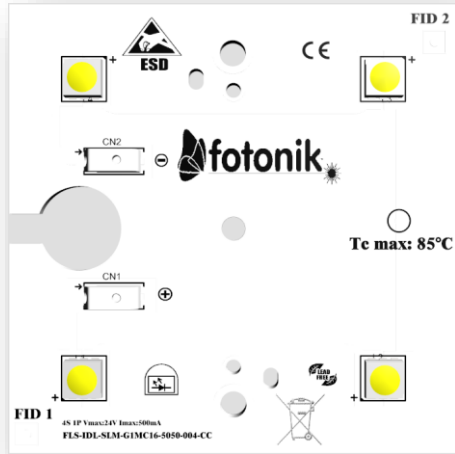
**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1

Module Specifications		
LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	35	35
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	24	24
Module Operating Current (mA)	250	375
Branch Operating Current (mA)	50	75
Module Power (W)	6	9
Module Light Output (lm)	801	1257
Module Efficacy (lm/W)	133,5	139,6
Dimension	500mm x 12mm	
Compatible Driver	Constant Voltage (24v)	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## FLS-IDL-SLM-060060-15A2-004-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 4 Series 1 Parallel.
- Luminous flux range from 2649 lm
- Efficacy of the module up to 155 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-IDL-SLM-060060-G1MC16-5050-004-CC

### Module Specifications

LED Type	LH502C/A2
Compatible Lens	LEDIL Daisy 2x2
LED Quantity	4
Correlated Color Temperature (CCT)	4000 °K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	24.64
Module Operating Current (mA)	700
Branch Operating Current (mA)	700
Module Power (W)	17.2
Module Light Output (lm)	2649
Module Efficiency (lm/W)	155
Dimension	60mm X 60mm
Compatible Driver	20W-700mA

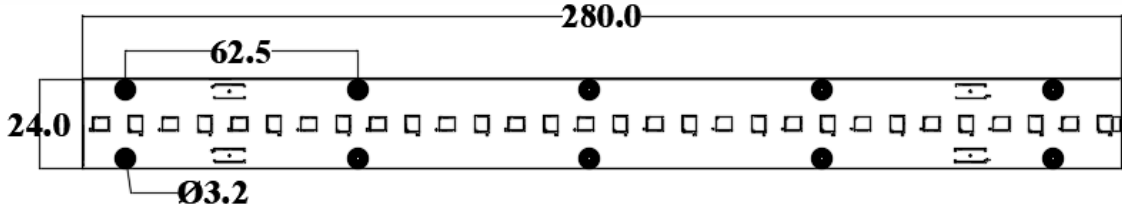
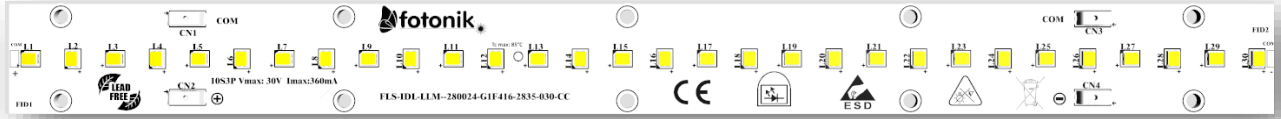
Lumens tolerance of  $\pm 10\%$  on intensity measurements.



**SAMSUNG** LED's inside.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH502C	0,910	0,946	1	1,01	1



## FLS-IDL-LLM-280024-12RJ-030-840-CC SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 10 Series 3 Parallel.
- Luminous flux range from 687 lm to 2065 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- FR4 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

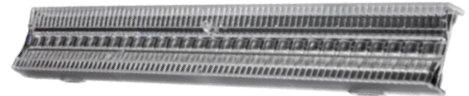
IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-LLM-280024-G1F416-2835-030-CC

## Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
Compatible Lens	LEDIL Linnea gc	
LED Quantity	30	30
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	31	30
Module Operating Current (mA)	150	450
Branch Operating Current (mA)	50	150
Module Power (W)	4.4	13
Module Light Output (lm)	687	2065
Module Efficacy (lm/W)	156	160
Dimension	280mm X 24mm	
Compatible Driver	5W-150mA	18W-450mA

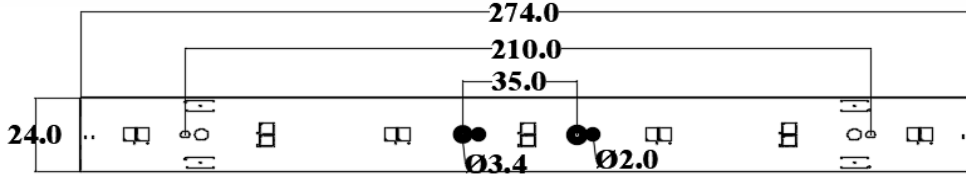
Lumens tolerance of ±10% on intensity measurements.



**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-274024-12RJ-014-840-CC SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 7 Series 2 Parallel.
- Luminous flux range from 320 lm to 961 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- FR4 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-LLM-274024-G1F416-2835-014-CC

## Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
Compatible Lens	LEDIL Daisy 7x1	
LED Quantity	14	14
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	21.7	21
Module Operating Current (mA)	100	300
Branch Operating Current (mA)	50	150
Module Power (W)	2.1	10,4
Module Light Output (lm)	320	961
Module Efficacy (lm/W)	156	160
Dimension	274mm X 24mm	
Compatible Driver	4W-100mA	12W-300mA

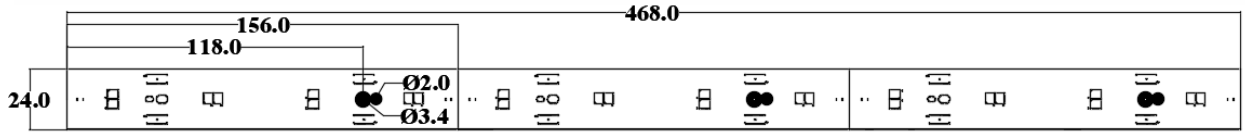
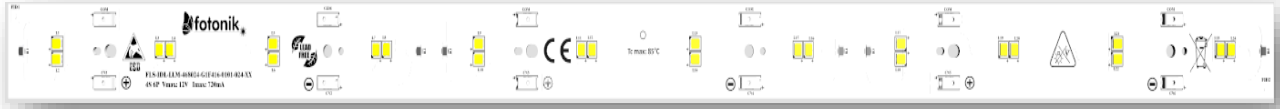
Lumens tolerance of ±10% on intensity measurements.

**SAMSUNG** LED's inside.



## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-468024-12RJ-024-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 12 Series 2 Parallel.
- Luminous flux range from 549 lm to 1652 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- FR4 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-LLM-46824-G1F416-2835-024-CC

### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
Compatible Lens	LEDIL Daisy 4x1	
LED Quantity	24	24
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	37.2	36
Module Operating Current (mA)	100	300
Branch Operating Current (mA)	50	150
Module Power (W)	3,5	10,4
Module Light Output (lm)	549	1652
Module Efficacy (lm/W)	156	160
Dimension	468mm X 24mm	
Compatible Driver	4W-100mA	12W-300mA

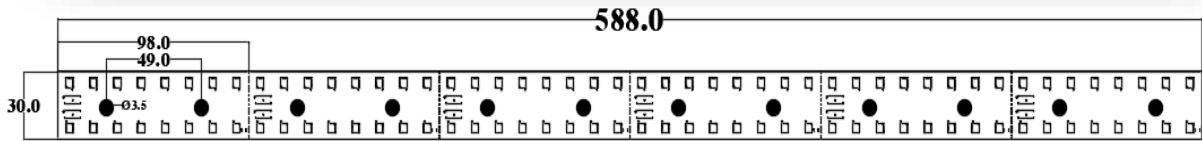
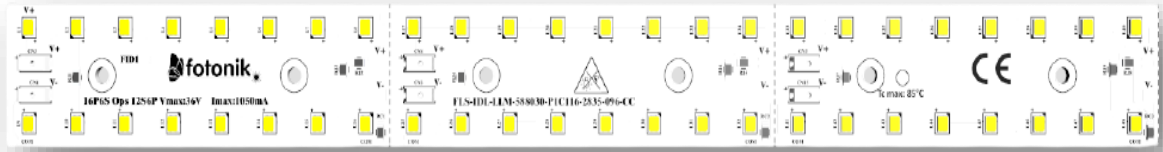
Lumens tolerance of ±10% on intensity measurements.



**SAMSUNG** LED's inside.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-588030-12RJ-096-840-CC SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 6 Series 16 Parallel or 12 Series 8 Parallel.
- Luminous flux range from 2194 lm to 5838 lm
- Efficacy of the module up to 163 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-LLM-588030-P1MC16-2835-096-CC

## Module Specifications

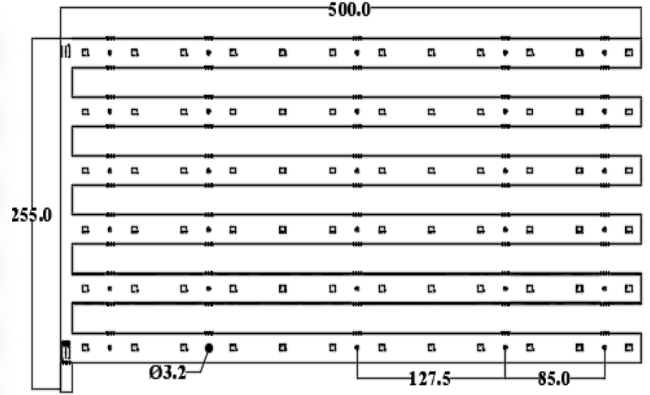
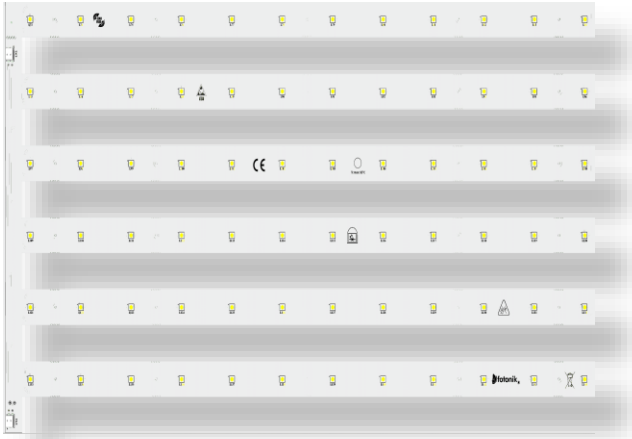
LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	96	96
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	18.8	36
Module Operating Current (mA)	900	1050
Branch Operating Current (mA)	56	131
Module Power (W)	16.92	37.8
Module Light Output (lm)	2194	5838
Module Efficacy (lm/W)	156	163
Dimension	588mm X 30mm	
Compatible Driver	20W-900mA	40W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-FLM-510255-12RJ-072-840-CC

### SPECIFICATIONS

- Ideal for 2" X 2" Troffer / LED panel light (6060)
- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 12 Series 6 Parallel.
- Luminous flux range from 2016 lm to 3911 lm
- Efficacy of the module up to 178 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- CEM1 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-FLM-510255-G1C116-2835-072-CC

**SAMSUNG** LED's inside.

### Module Specifications

LED Type	LM281B+/RJ		
LED Quantity	72		
Correlated Color Temperature (CCT)	4000°K	4000°K	4000°K
Color Rendering Index (CRI)	80+	80+	80+
Module Operating Voltage (V)	37.2	37.2	37.2
Module Operating Current (mA)	350	500	700
Branch Operating Current (mA)	58	83	116
Module Power (W)	11,3	18,6	23,6
Module Light Output (lm)	2016	2586	3911
Module Efficacy (lm/W)	178	175	166
Dimension	500mm x 255mm		
Compatible Driver	12W-350mA	20W-500mA	25W-700mA

Lumens tolerance of ±10% on intensity measurements.



### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1





## FLS-IDL-LLM-450009-12RJ-012-840-CC

### SPECIFICATIONS

- Ideal for 2" X 2" Troffer / LED panel light (6060)
- LEDs on the module connected as 10 Series 1 Parallel or 12 Series 1 Parallel.100LEDs or 120 LEDs with 10pcs module
- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- Luminous flux range from 4032 lm to 5935 lm
- Efficacy of the module up to 170 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- CEM1 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-LLM-450009-G1C116-3030-012-CC

**SAMSUNG** LED's inside.

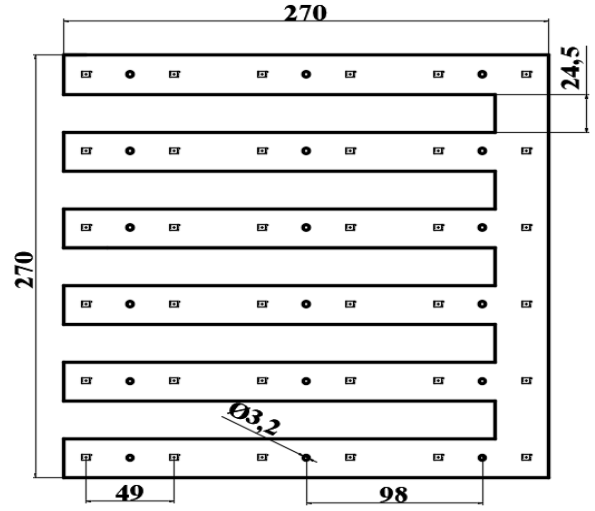
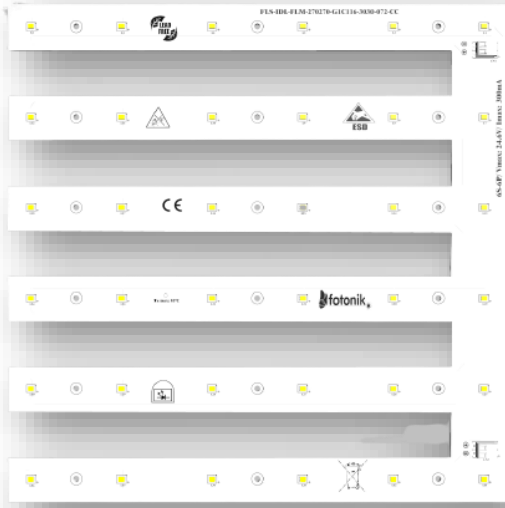


### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1

Module Specifications			
LED Type	LM281B+/RJ		
LED Quantity	120		
Correlated Color Temperature (CCT)	4000°K	4000°K	4000°K
Color Rendering Index (CRI)	80+	80+	80+
Module Operating Voltage (V)	33,96	34,44	34,8
Module Operating Current (mA)	700	900	1050
Branch Operating Current (mA)	70	90	105
Module Power (W)	23,8	31	36,6
Module Light Output (lm)	4032	5130	5935
Module Efficacy (lm/W)	169,5	165,2	162,2
Dimension	450mmx9,5mm		
Compatible Driver	25W 700mA	36W 900mA	40W 1050mA

Lumens tolerance of ±10% on intensity measurements.



## FLS-IDL-FLM-270270-12RJ-036-840-CC

### SPECIFICATIONS

- Ideal for 1" X 1" Troffer / LED panel light (3030)
- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 6 Series 6 Parallel.
- Luminous flux range from 973 lm to 1965 lm
- Efficacy of the module up to 167 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- CEM1 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-FLM-270270-G1C116-2835-036-CC

**SAMSUNG** LED's inside.



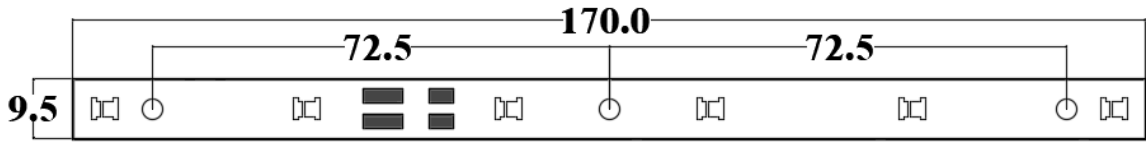
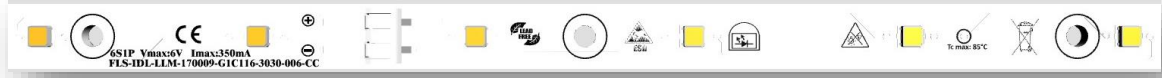
### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ	LM281B+/RJ
LED Quantity	36		
Correlated Color Temperature (CCT)	4000°K	4000°K	4000°K
Color Rendering Index (CRI)	80+	80+	80+
Module Operating Voltage (V)	17,76	17,16	17,58
Module Operating Current (mA)	350	500	700
Branch Operating Current (mA)	58,33	83,33	116,67
Module Power (W)	6,2	8,6	12,3
Module Light Output (lm)	973,4	1430	1965
Module Efficacy (lm/W)	157	167	160
Dimension	270mm x 270mm		
Compatible Driver	7W-350mA	9W-500mA	15W-700mA

Lumens tolerance of ±10% on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-FLM-170009-12RJ-006-840-CC

### SPECIFICATIONS

- Ideal for 1" X 1" Troffer / LED panel light (3030)
- LEDs on the module connected as 2 Series 3 Parallel. 36 LEDs with 6 pcs module
- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- Luminous flux range from 1965 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- CEM1 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-IDL-FLM-170009-G1C116-3030-006-CC

**SAMSUNG** LED's inside.

### Module Specifications

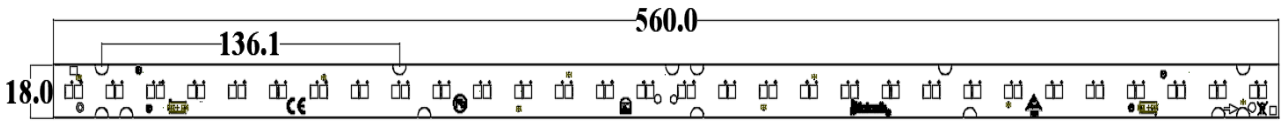
LED Type	LM281B+/RJ
LED Quantity	36
Correlated Color Temperature (CCT)	4000°K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	35,16
Module Operating Current (mA)	350
Branch Operating Current (mA)	116,67
Module Power (W)	12,3
Module Light Output (lm)	1965
Module Efficacy (lm/W)	160
Dimension	170mm x 9.5mm
Compatible Driver	15W-350mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-560018-12RJ-060-840-CC SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 6 Series 5 Parallel.
- Luminous flux range from 1652 lm to 3600 lm
- Efficacy of the module up to 156 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-HCL-LLM-560018-G1MC16-2835-060-CC

## Module Specifications

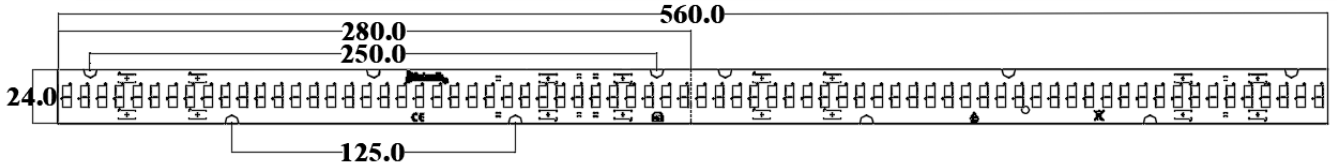
LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	60	60
Correlated Color Temperature (CCT)	4000 °K	4000°K
Color Rendering Index (CRI)	80	80+
Module Operating Voltage (V)	35	36
Module Operating Current (mA)	300	700
Branch Operating Current (mA)	60	140
Module Power (W)	10,6	25
Module Light Output (lm)	1652	3600
Module Efficiency (lm/W)	156	144
Dimension	560mm x 18mm	
Compatible Driver	15W-300mA	25W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



## FLS-IDL-LLM-560024-12RJ-072-840-CC

### SPECIFICATIONS

- Default driving method is constant current input
- CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 8 Series 9 Parallel.
- Luminous flux range from 1645 lm to 4957 lm
- Efficacy of the module up to 160 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-HCL-LLM-560024-G1MC16-3030-144-CC

### Module Specifications

LED Type	LM281BA+/S3	LM281B+/RJ
LED Quantity	72	72
Correlated Color Temperature (CCT)	4000 °K	4000 °K
Color Rendering Index (CRI)	80	80
Module Operating Voltage (V)	24.8	24
Module Operating Current (mA)	500	1350
Branch Operating Current (mA)	55.5	150
Module Power (W)	12.4	31.1
Module Light Output (lm)	1645	4957
Module Efficacy (lm/W)	156	160
Dimension	560mm x 24mm	
Compatible Driver	15W-500mA	35W-1350mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

**SAMSUNG** LED's inside.

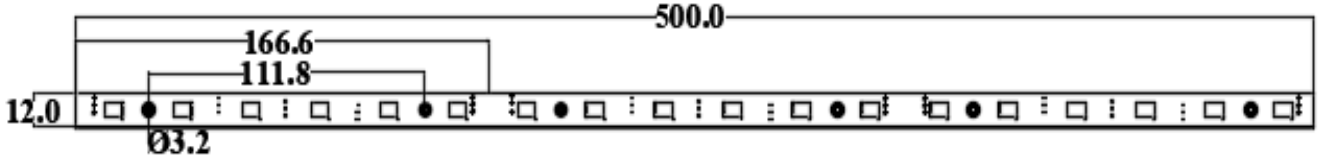
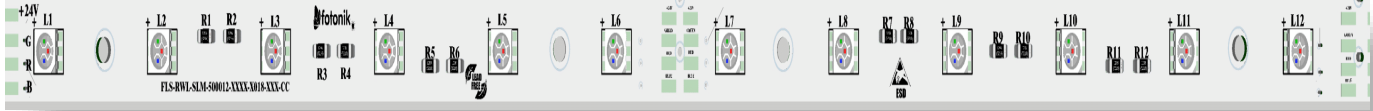
### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281BA+	0,910	0,945	1	1,01	1
LM281B+	0,927	0,955	1	1.013	1



RGBW LIGHTING SOLUTIONS





## FLS-RGB-LLM-500012-AG10-018-RGB-CV

### SPECIFICATIONS

- Default driving method is constant voltage input
- LEDs on the module connected as 6 Series 3 Parallel.
- Luminous flux range from 26730 mcd
- FR4 two layer used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 3-year limited warranty

### Module Specifications

LED Type	Prolight		
LED Quantity	18		
Correlated Color Temperature (CCT)	R	G	B
Wavelength (nm)	620	520	470
Module Operating Voltage (V)	24		
Module Operating Current (mA)	60	60	60
Branch Operating Current (mA)	20	20	20
Module Power (W)	4,32		
Module Light Output (mcd)	4860	18000	3870
R+G+B Light Output (lm)	26730		
Dimension	500mm X 12mm		

*Candela tolerance of ±10% on intensity measurements.*

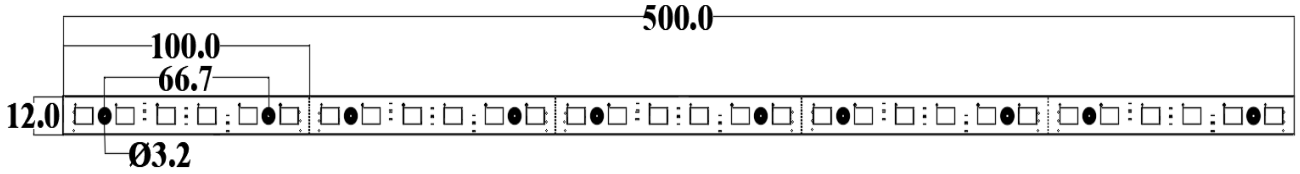
### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-RGB-LLM-500012-G2F416-5050-018-CV

LED's inside.



## FLS-RGB-LLM-500012-AG10-030-RGB-CV

### SPECIFICATIONS

- Default driving method is constant voltage input
- LEDs on the module connected as 6 Series 5 Parallel.
- Luminous flux range from 44400 mcd
- FR4 two layer used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 3-year limited warranty

### Module Specifications

LED Type	Prolight		
LED Quantity	30		
Correlated Color Temperature (CCT)	R	G	B
Wavelength (nm)	620	520	470
Module Operating Voltage (V)	24		
Module Operating Current (mA)	100	100	100
Branch Operating Current (mA)	20	20	20
Module Power (W)	7.2		
Module Light Output (mcd)	8100	30000	6300
R+G+B Light Output (lm)	44400		
Dimension	500mm X 12mm		

Candela tolerance of  $\pm 10\%$  on intensity measurements.

### STANDARDS

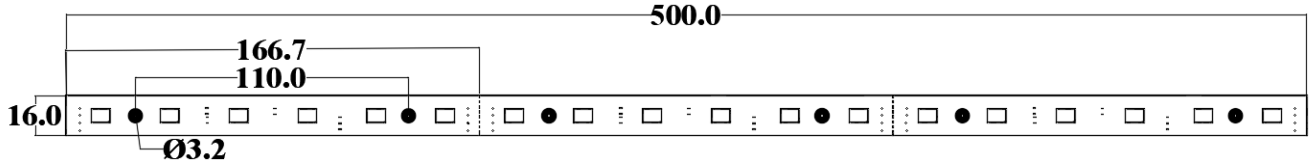
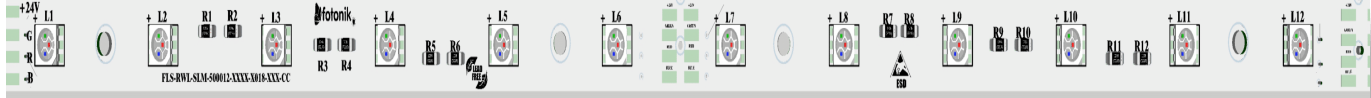
IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-RGB-LLM-500012-G2F416-5050-030-CV

LED's inside.





## FLS-RGB-LLM-500016-AE10-018-RGB-CV SPECIFICATIONS

- Default driving method is constant voltage input
- LEDs on the module connected as 6 Series 3 Parallel.
- Luminous flux range from 42120 mcd
- FR4 two layer used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 3-year limited warranty

## Module Specifications

LED Type	Prolight			
LED Quantity	18			
Correlated Color Temperature (CCT)	R	G	B	W
Wavelength (nm)	619	521	465	3700°K
Module Operating Voltage (V)	24			
Module Operating Current (mA)	60	60	60	360
Branch Operating Current (mA)	20	20	20	30/60
Module Power (W)	13			
Module Light Output (mcd)	1620	33300	7200	-
Natural White Light Output(lm)				189/378
R+G+B Light Output (mcd)	42120			
Dimension	500x16mm			

*Candela tolerance of ±10% on intensity measurements.*

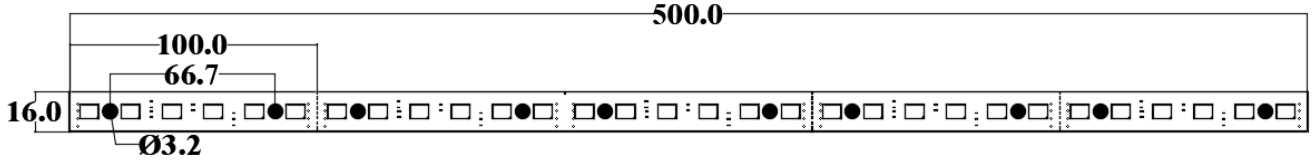
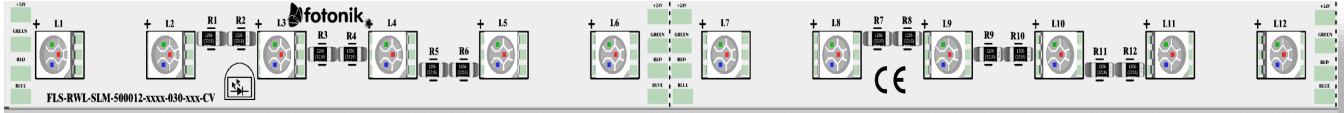
## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

**FLS-RGB-LLM-500016-G2F416-5050-018-CV**

LED's inside.



## FLS-RGB-LLM-500016-AE10-030-RGB-CV

### SPECIFICATIONS

- Default driving method is constant voltage input
- LEDs on the module connected as 6 Series 5 Parallel.
- Luminous flux range from 94500 mcd
- FR4 two layer used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 3-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

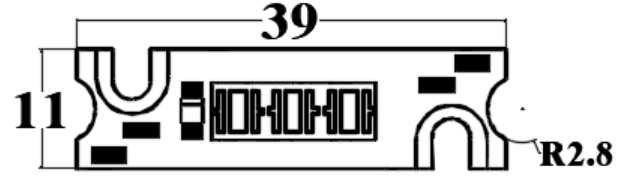
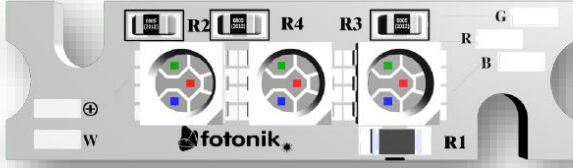
FLS-RGB-LLM-500016-G2F416-5050-030-CV

LED's inside.

### Module Specifications

LED Type	Prolight			
LED Quantity	30			
Correlated Color Temperature (CCT)	R	G	B	W
Wavelength (nm)	619	521	465	3700°K
Module Operating Voltage (V)	24			
Module Operating Current (mA)	100	100	100	300
Branch Operating Current (mA)	20	20	20	30/60
Module Power (W)	14.4			
Module Light Output (mcd)	27000	55500	12000	-
Natural White Light Output(lm)				315/630
R+G+B Light Output (mcd)	94500			
Dimension	500x16mm			

Candela tolerance of ±10% on intensity measurements.



## FLS-RGB-LLM-039011-AE10-003-RGB-CV

### SPECIFICATIONS

- Default driving method is constant voltage input
- LEDs on the module connected as 3 Series 1Parallel.
- Luminous flux range from 9450 mcd
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Long life-time  $> 60,000$  hours
- 3-year limited warranty

### Module Specifications

LED Type	Prolight			
Compatible Lens	FLS-PC-D0055004031-SBA03180			
LED Quantity	3			
Correlated Color Temperature (CCT)	R	G	B	W
Wavelength (nm)	619	521	465	3700°K
Module Operating Voltage (V)	12			
Module Operating Current (mA)	20	20	20	20
Branch Operating Current (mA)	20	20	20	30/60
Module Power (W)	1.44			
Module Light Output (mcd)	2700	5550	1200	-
Natural White Light Output(lm)				31/63
R+G+B Light Output (mcd)	9450			
Dimension	39mm x 11mm			

*Candela tolerance of  $\pm 10\%$  on intensity measurements.*

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-RWL-LLM-039011-G1MC16-5050-003-CV



*ProLight Opto* LED's inside.



## FLS-RGB-LLM-039011-3EB1-003-RGB-CC

### SPECIFICATIONS

- Default driving method is constant voltage input
- LEDs on the module connected as 3 Series 1 Parallel.
- Luminous flux range from 681 lm
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Long life-time  $> 60,000$  hours
- 3-year limited warranty

### Module Specifications

LED Type	Cree® XLamp® XM-L® Color			
Compatible Lens	FLS-PC-D0055004031-SBA03180			
LED Quantity	3			
Correlated Color Temperature (CCT)	R	G	B	W
Wavelength (nm)	620	520	450	3700°K
Module Operating Voltage (V)	6,75	9,9	9,3	9,3
Module Operating Current (mA)	350			
Branch Operating Current (mA)	350			
R+G+B+W Power (W)	7,1	10,4	9,75	9,75
Module Power (W)	37			
R+G+B+W Light Output (lm)	137,1	262,2	41,7	240
Module Light Output (lm)	681			
Dimension	39mm x 11mm			

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-RWL-LLM-039011-G1MC16-5050-003-CC

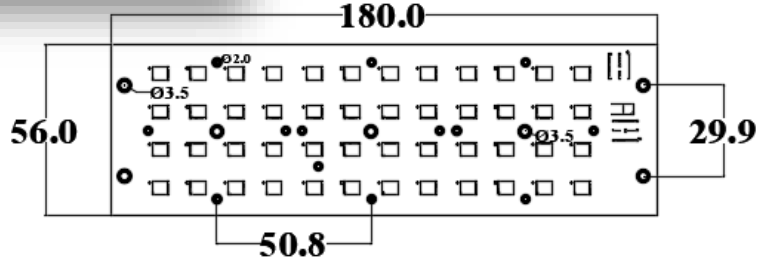
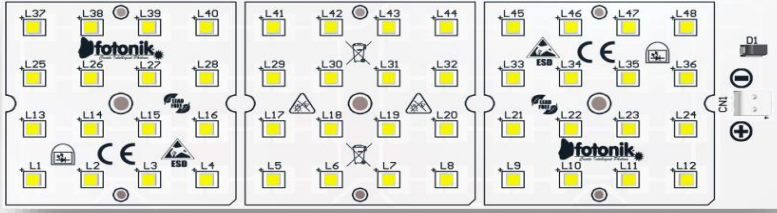


**CREE** LED's inside.



**OUTDOOR LIGHTING SOLUTIONS**





## FLS-ODL-SLM-180056-13SF-048-850-CC SPECIFICATIONS

- Ideal for industrial light and flood light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 6 Series 8 Parallel.
- Luminous flux range from 4875 lm to 6445 lm
- Efficacy of the module up to 151 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-ODL-SLM-180056-G1MC16-3030-048-CC

## Module Specifications

LED Type	LM302D/SF	LM282B+/SB
Compatible Lens	LEDIL Stradella 16	
LED Quantity	48	48
Correlated Color Temperature (CCT)	5000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	36,6	37.8
Module Operating Current (mA)	1200	1050
Branch Operating Current (mA)	150	131
Module Power (W)	42.7	37.1
Module Light Output (lm)	6445	4875
Module Efficacy (lm/W)	151	132
Dimension	180mm x 56mm	
Compatible Driver	50W-1200mA	40W-1050mA

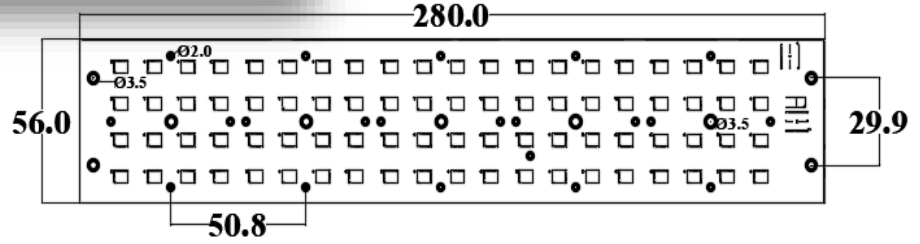
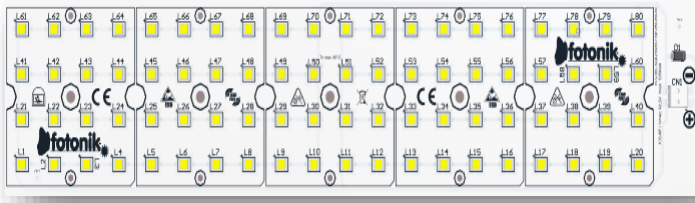
Lumens tolerance of  $\pm 10\%$  on intensity measurements.



**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM302D	0,88	0,93	0,976	1	1,02
LM282B+	0,78	0,81	0,85	1	0,85



## FLS-ODL-SLM-280056-13SF-080-850-CC SPECIFICATIONS

- Ideal for industrial light and flood light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 10 Series 8 Parallel.
- Luminous flux range from 8125 lm to 10742 lm
- Efficacy of the module up to 151 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-280056-G1MC16-3030-080-CC

## Module Specifications

LED Type	LM302D/SF	LM282B+/SB
Compatible Lens	LEDIL Stradella 16	
LED Quantity	80	80
Correlated Color Temperature (CCT)	5000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	61	63
Module Operating Current (mA)	1200	1050
Branch Operating Current (mA)	150	131
Module Power (W)	71.2	61.8
Module Light Output (lm)	10742	8125
Module Efficacy (lm/W)	151	132
Dimension	280mm x 56mm	
Compatible Driver	75W-1200mA	65W-1050mA

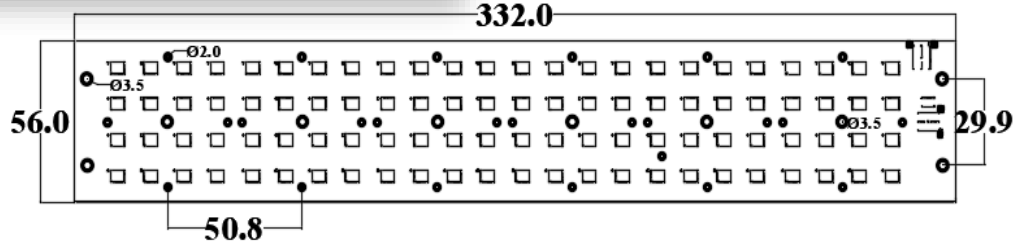
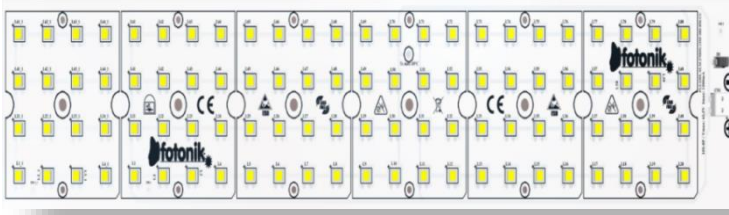
Lumens tolerance of  $\pm 10\%$  on intensity measurements.



**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM302D	0,88	0,93	0,976	1	1,02
LM282B+	0,78	0,81	0,85	1	0,85



## FLS-ODL-SLM-332056-13SF-096-850-CC SPECIFICATIONS

- Ideal for industrial light and flood light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 12 Series 8 Parallel.
- Luminous flux range from 9600 lm to 12891 lm
- Efficacy of the module up to 151 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-ODL-SLM-332056-G1MC16-3030-096-CC

## Module Specifications

LED Type	LM302D/SF	LM282B+/SB
Compatible Lens	LEDIL Stradella 16	
LED Quantity	96	96
Correlated Color Temperature (CCT)	5000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	73.2	75.6
Module Operating Current (mA)	1200	1050
Branch Operating Current (mA)	150	131
Module Power (W)	85.4	74.2
Module Light Output (lm)	12891	9600
Module Efficacy (lm/W)	151	130
Dimension	332mm x 56mm	
Compatible Driver	90W-1200mA	80W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

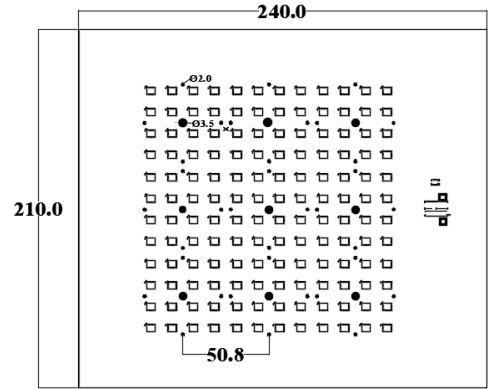
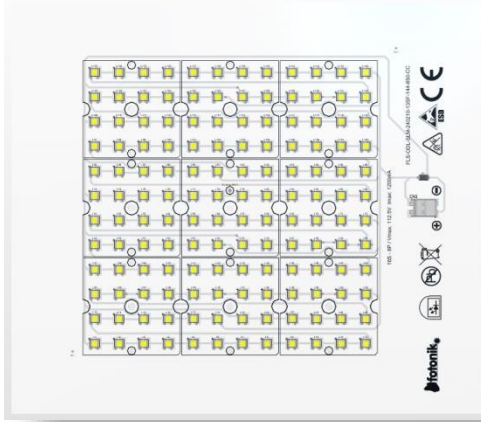


**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM302D	0,88	0,93	0,976	1	1,02
LM282B+	0,78	0,81	0,85	1	0,85





## FLS-ODL-SLM-240210-13SF-144-850-CC

### SPECIFICATIONS

- Ideal for industrial light and flood light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 18 Series 8 Parallel.
- Luminous flux range from 14625 lm to 19336 lm
- Efficacy of the module up to 151 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-240210-G1MC16-3030-144-CC

### Module Specifications

LED Type	LM302D/SF	LM282B+/SB
Compatible Lens	LEDIL Stradella 16	
LED Quantity	144	144
Correlated Color Temperature (CCT)	5000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	109,8	113.4
Module Operating Current (mA)	1200	1050
Branch Operating Current (mA)	150	131
Module Power (W)	128.1	111.3
Module Light Output (lm)	19336	14625
Module Efficacy (lm/W)	151	132
Dimension	240mm x 210mm	
Compatible Driver	150W-1200mA	120W-1050mA

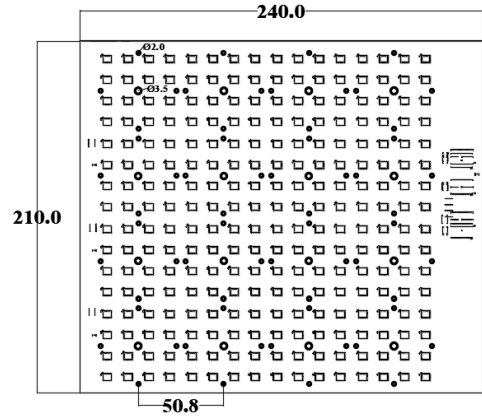
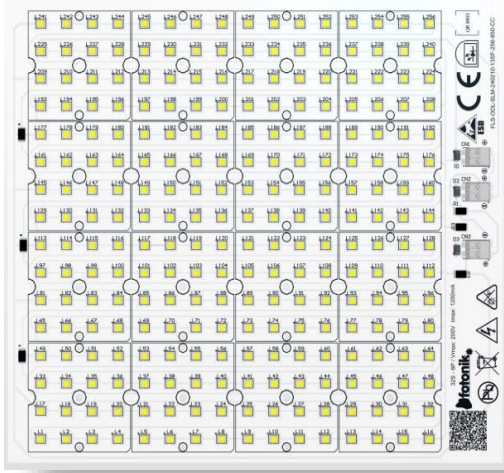
Lumens tolerance of  $\pm 10\%$  on intensity measurements.



**SAMSUNG** LED's inside.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM302D	0,88	0,93	0,976	1	1,02
LM282B+	0,78	0,81	0,85	1	0,85



## FLS-ODL-SLM-240210-13SF-256-850-CC

### SPECIFICATIONS

- Ideal for industrial light and flood light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 1 channel 32 Series 8 Parallel or 2 channel 32 Series 4 Parallel.
- Luminous flux range from 25999 lm to 34375 lm
- Efficacy of the module up to 151 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-240210-G1MC16-3030-256-CC

**SAMSUNG** LED's inside.

### Module Specifications

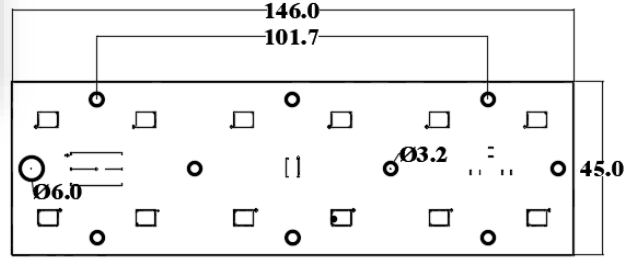
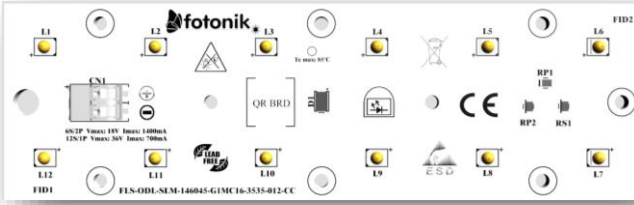
LED Type	LM302D/SF	LM282B+/SB
Compatible Lens	LEDIL Stradella 16	
LED Quantity	256	256
Correlated Color Temperature (CCT)	5000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	195,2	214.4
Module Operating Current (mA)	1200	1050
Branch Operating Current (mA)	150	131
Module Power (W)	227.8	198
Module Light Output (lm)	34375	25999
Module Efficacy (lm/W)	151	132
Dimension	240mm x 210mm	
Compatible Driver	240W-1200mA	200W-1050mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM302D	0,88	0,93	0,976	1	1,02
LM282B+	0,78	0,81	0,85	1	0,85



## FLS-ODL-SLM-146045-16RB-012-850-CC SPECIFICATIONS

- Ideal for park light and garden light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 12 Series 1 Parallel or 6 Series 2 Parallel.
- Typ. luminous flux of 2838 to 3802 lm
- Efficacy of the module up to 159 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## Module Specifications

LED Type	LH351C/RB	
Compatible Lens	LEDIL Strada 2x6	
LED Quantity	12	
Correlated Color Temperature (CCT)	5000 °K	
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	35,52	36,48
Module Operating Current (mA)	500	700
Branch Operating Current (mA)	500	700
Module Power (W)	17,8	25,5
Module Light Output (lm)	2838	3802
Module Efficacy (lm/W)	159	149
Dimension	146mm x 45mm	
Compatible Driver	20W-500mA	29W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

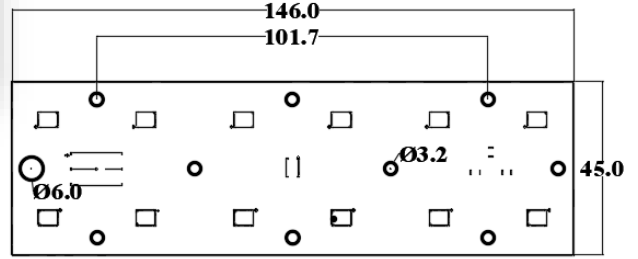
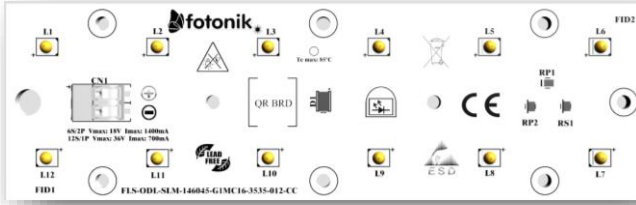
You may tell us the code below for ordering only PCB

FLS-ODL-SLM-146045-G1MC16-3535-012-CC

**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH351C	1	1	1	1	1



## FLS-ODL-SLM-146045-16Q1-012-850-CC SPECIFICATIONS

- Ideal for park light and garden light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 12 Series 1 Parallel or 6 Series 2 Parallel.
- Typ. luminous flux of 2857 to 3787 lm
- Efficacy of the module up to 161 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## Module Specifications

LED Type	LH351B/RB	
Compatible Lens	LEDIL Strada 2x6	
LED Quantity	12	
Correlated Color Temperature (CCT)	5000 °K	
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	35,52	36,36
Module Operating Current (mA)	500	700
Branch Operating Current (mA)	500	700
Module Power (W)	17,7	25,4
Module Light Output (lm)	2857	3787
Module Efficacy (lm/W)	161	149
Dimension	146mm x 45mm	
Compatible Driver	20W-500mA	29W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## STANDARTS

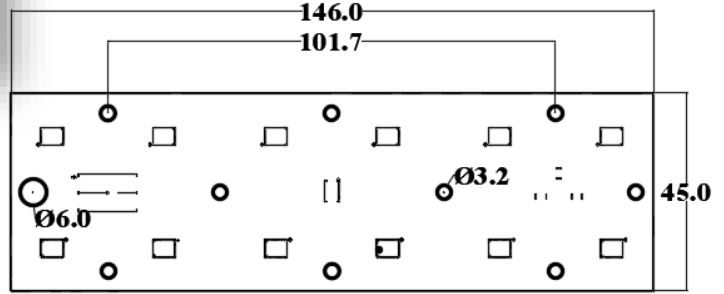
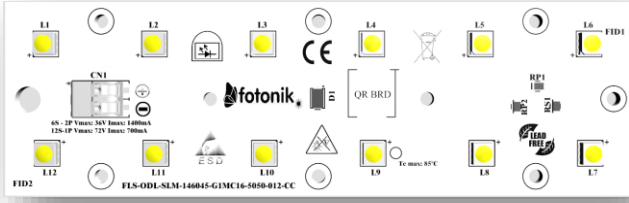
IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-146045-G1MC16-3535-012-CC

**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH351B	1	1	1	1	1



## FLS-ODL-SLM-146045-15A2-012-840-CC SPECIFICATIONS

- Ideal for park light and garden light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 12 Series 1 Parallel or 6 Series 2 Parallel.
- Typ. luminous flux of 7293 lm
- Efficacy of the module up to 141 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-146045-G1MC16-5050-012-CC

**SAMSUNG** LED's inside.

## Module Specifications

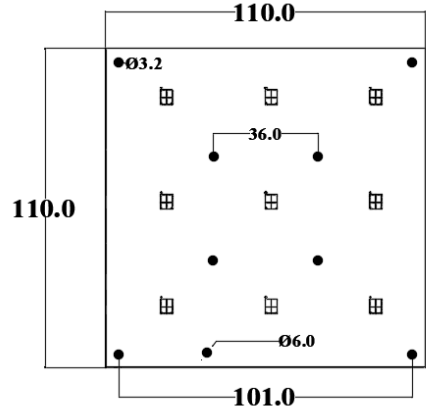
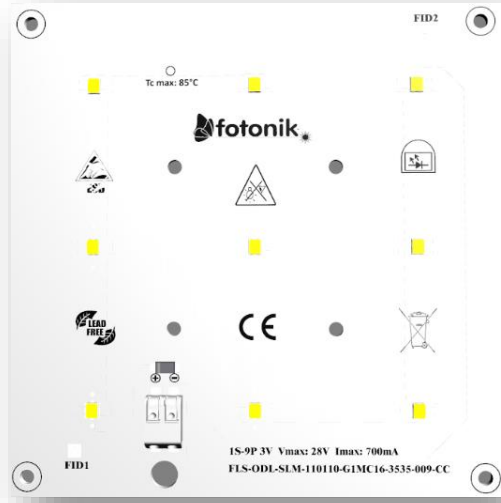
LED Type	LH502C/A2
Compatible Lens	LEDIL Strada 2x6
LED Quantity	12
Correlated Color Temperature (CCT)	4000 °K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	36.6
Module Operating Current (mA)	1400
Branch Operating Current (mA)	700
Module Power (W)	51.24
Module Light Output (lm)	7293
Module Efficacy (lm/W)	141
Dimension	146mm x 45mm
Compatible Driver	60W-1400 mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH502	0.89	0.922	1	1	0.985



## FLS-ODL-SLM-110110-16QB-009-840-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 9 Series 1 Parallel.
- Typ. luminous flux of 2851 to 3515 lm
- Efficacy of the module up to 149 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-110110-G1MC16-3535-009-CC

**SAMSUNG** LED's inside.

## Module Specifications

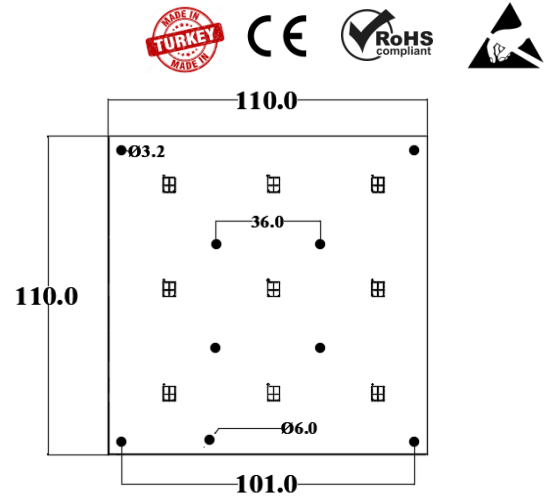
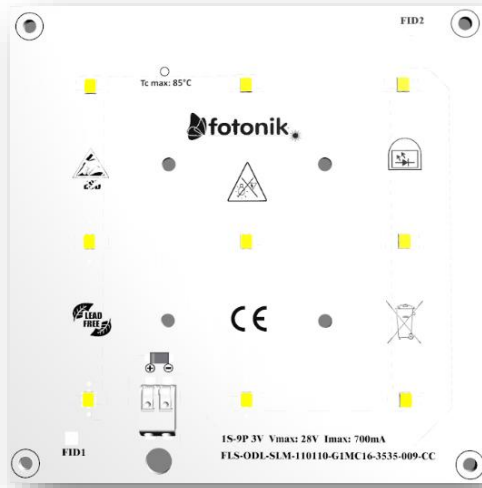
LED Type	LH351C/QB	
Compatible Lens	FLS-PC-D0136013623-SBA00008	
LED Quantity	9	
Correlated Color Temperature (CCT)	4000 °K	
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	27,36	28
Module Operating Current (mA)	700	900
Branch Operating Current (mA)	700	900
Module Power (W)	19,1	25,2
Module Light Output (lm)	2851	3515
Module Efficacy (lm/W)	149	139,6
Dimension	110mm x 110mm	
Compatible Driver	20W-700mA	26W-900mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH351C	1	1	1	1	1



## FLS-ODL-SLM-110110-15A2-009-840-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 9 Series 1 Parallel.
- Typ. luminous flux of 4151 to 5470 lm
- Efficacy of the module up to 149 lm/W  $T_c = 85^\circ\text{C}$
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2 \text{ W/m-K}$
- Operating Temperature from  $-40^\circ\text{C}$  up to  $+85^\circ\text{C}$
- Storage Temperature  $-40^\circ\text{C}$  up to  $+55^\circ\text{C}$
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-110110-G1MC16-5050-009-CC

**SAMSUNG** LED's inside.

## Module Specifications

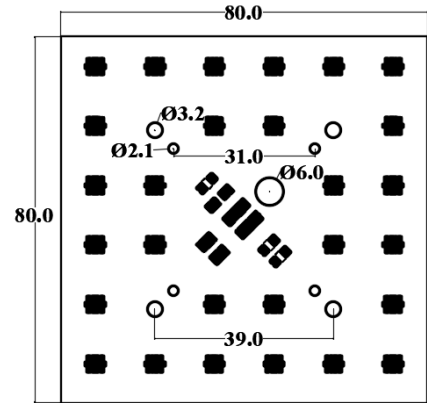
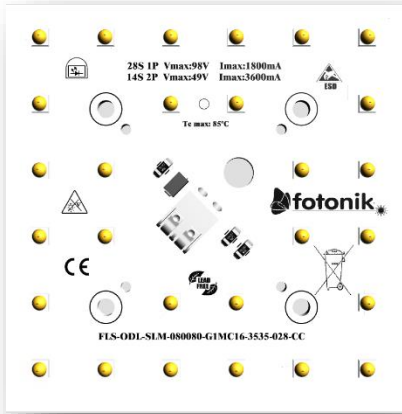
LED Type	LH502C/A2	
Compatible Lens	FLS-PC-D0136013623-SBA00008	
LED Quantity	9	
Correlated Color Temperature (CCT)	4000 °K	
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	53,55	55,44
Module Operating Current (mA)	500	700
Branch Operating Current (mA)	500	700
Module Power (W)	26,8	38,8
Module Light Output (lm)	4151	5470
Module Efficacy (lm/W)	155	141
Dimension	110mm x 110mm	
Compatible Driver	30W-500mA	40W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH502	0.89	0.922	1	1	0.985



## FLS-ODL-SLM-080080-16QB-028-850-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 28 Series 1 Parallel or 14 Series 2 Parallel.
- Typ. luminous flux of 8870 lm
- Efficacy of the module up to 149 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-080080-G1MC16-3535-028-CC

**SAMSUNG** LED's inside.

## Module Specifications

LED Type	LH351C/QB
Compatible Lens	Ledil Stradella-IP-28
LED Quantity	28
Correlated Color Temperature (CCT)	5000 °K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	85
Module Operating Current (mA)	700
Branch Operating Current (mA)	700
Module Power (W)	59,6
Module Light Output (lm)	8870
Module Efficacy (lm/W)	149
Dimension	80mm x 80mm
Compatible Driver	60W-700mA

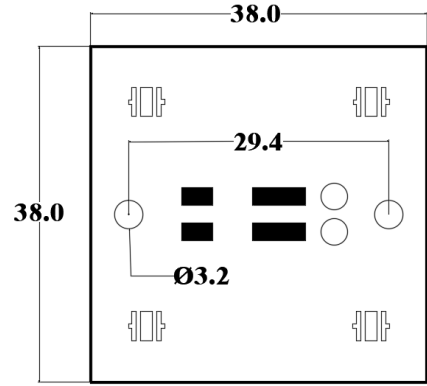
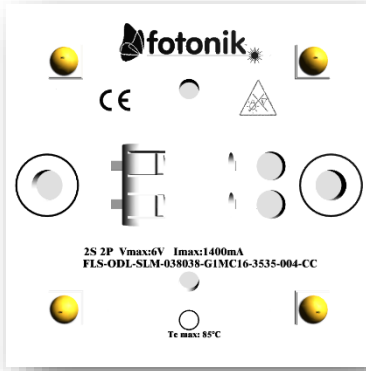
Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH351C	1	1	1	1	1





## FLS-ODL-SLM-038038-16QB-004-850-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 2 Series 2 Parallel
- Typ. luminous flux of 689 lm
- Efficacy of the module up to 170 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-038038-G1MC16-3535-004-CC

**SAMSUNG** LED's inside.

## Module Specifications

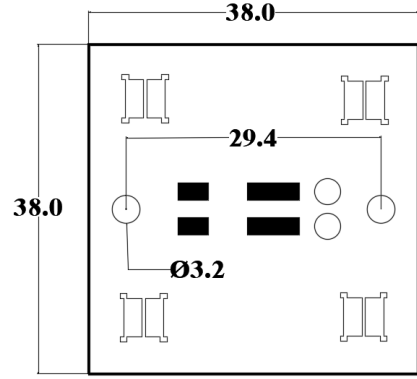
LED Type	LH351C/QB
Compatible Lens	Ledil Sitara-2x2-T2
LED Quantity	4
Correlated Color Temperature (CCT)	5000 °K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	6
Module Operating Current (mA)	700
Branch Operating Current (mA)	350
Module Power (W)	4
Module Light Output (lm)	689
Module Efficacy (lm/W)	170
Dimension	38mm x 38mm
Compatible Driver	25W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH351C	1	1	1	1	1



## FLS-ODL-SLM-038038-15A2-004-850-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Linear White LED module CCT Range from 2700°K up to 6500°K
- LEDs on the module connected as 2 Series 2 Parallel
- Typ. luminous flux of 1346 lm
- Efficacy of the module up to 165 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-038038-G1MC16-5050-004-CC

**SAMSUNG** LED's inside.

## Lumen Output Multiplier

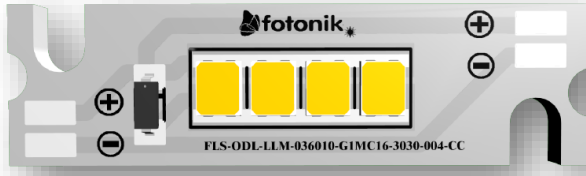
LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH502	0.89	0.922	1	1	0.985

## Module Specifications

LED Type	LH502C/A2
Compatible Lens	Ledil Sitara-2x2-T2
LED Quantity	4
Correlated Color Temperature (CCT)	5000 °K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	11,56
Module Operating Current (mA)	700
Branch Operating Current (mA)	350
Module Power (W)	4
Module Light Output (lm)	1346
Module Efficacy (lm/W)	165
Dimension	38mm x 38mm
Compatible Driver	20W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.





## FLS-ODL-LLM-039011-13SF-004-850-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 1 Series 4 Parallel.
- Luminous flux range from 291 lm to 336 lm
- Efficacy of the module up to 168 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-ODL-LLM-039011-G1MC16-3030-004-CC

## Module Specifications

LED Type	LM302D/SF	LM282B+/SB
Compatible Lens	FLS-PC-D0055004031-SBA03180	
LED Quantity	4	4
Correlated Color Temperature (CCT)	5000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	5,68	5,63
Module Operating Current (mA)	350	350
Branch Operating Current (mA)	87,5	87,5
Module Power (W)	2	2
Module Light Output (lm)	336	291
Module Efficacy (lm/W)	168	145
Dimension	39 mm x 11mm	
Compatible Driver	3W-350mA	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



**SAMSUNG** LED's inside.

## Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM302D	0,88	0,93	0,976	1	1,02
LM282B+	0,78	0,81	0,85	1	0,85



## FLS-ODL-LLM-039011-16QB-003-850-CC SPECIFICATIONS

- Ideal for architectural light
- Default driving method is constant current input
- Square LED module CCT Range from 2700°K up to 6500°K, 5000°K as standart
- LEDs on the module connected as 3 Series 1 Parallel.
- Luminous flux range from 317 lm
- Efficacy of the module up to 149 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-ODL-LLM-039011-G1MC16-3535-003-CC

**SAMSUNG** LED's inside.

Module Specifications	
LED Type	LH351C/QB
Compatible Lens	FLS-PC-D0055004031-SBA03180
LED Quantity	3
Correlated Color Temperature (CCT)	5000 °K
Color Rendering Index (CRI)	80+
Module Operating Voltage (V)	9,12
Module Operating Current (mA)	700
Branch Operating Current (mA)	700
Module Power (W)	6,4
Module Light Output (lm)	317
Module Efficacy (lm/W)	149
Dimension	39 mm x 11mm
Compatible Driver	7.7W-700mA

*Lumens tolerance of  $\pm 10\%$  on intensity measurements.*

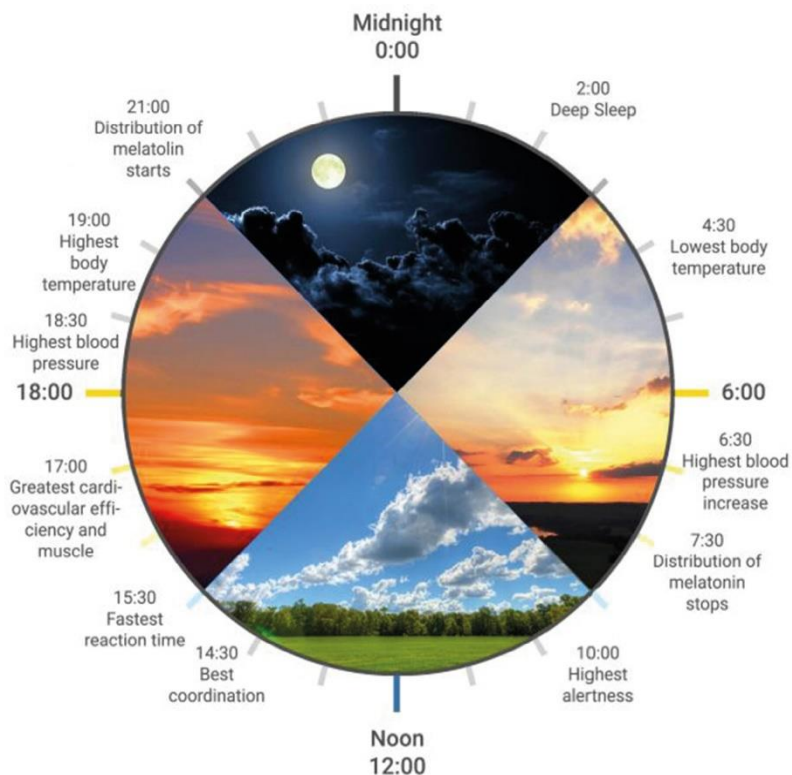


## Lumen Output Multiplier

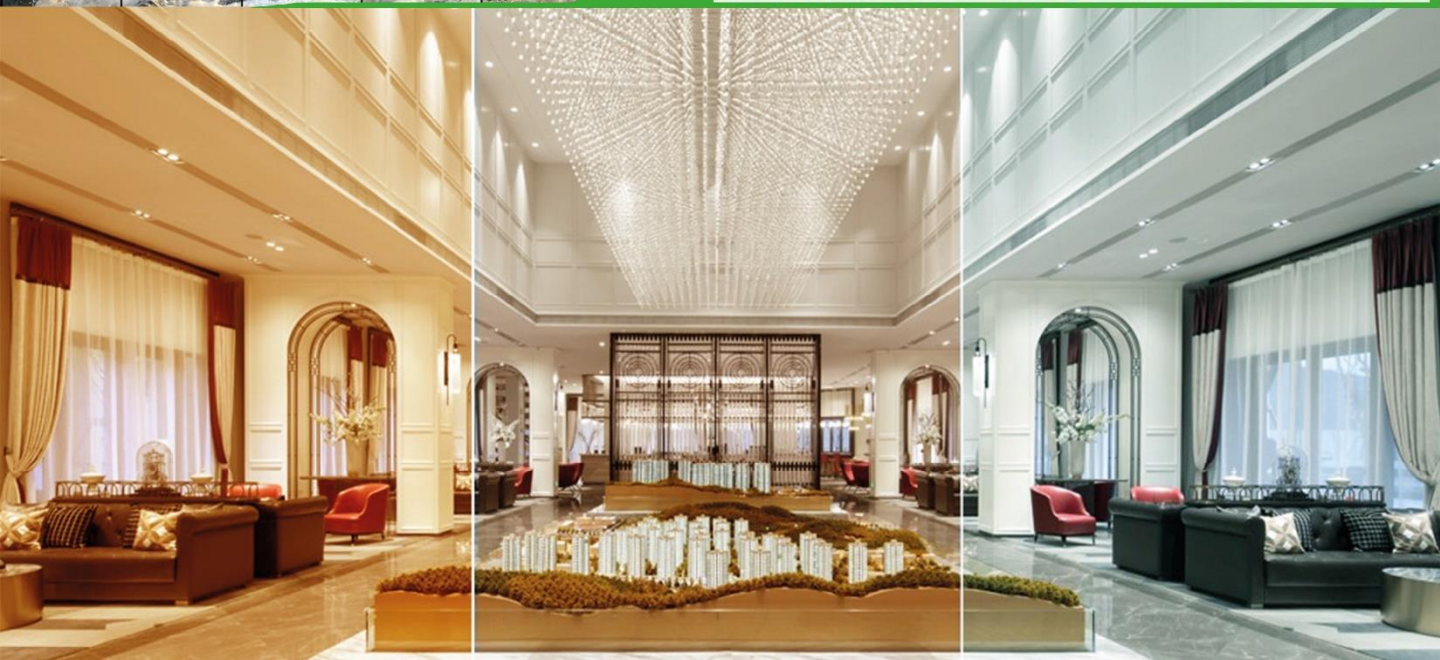
LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LH351C	1	1	1	1	1

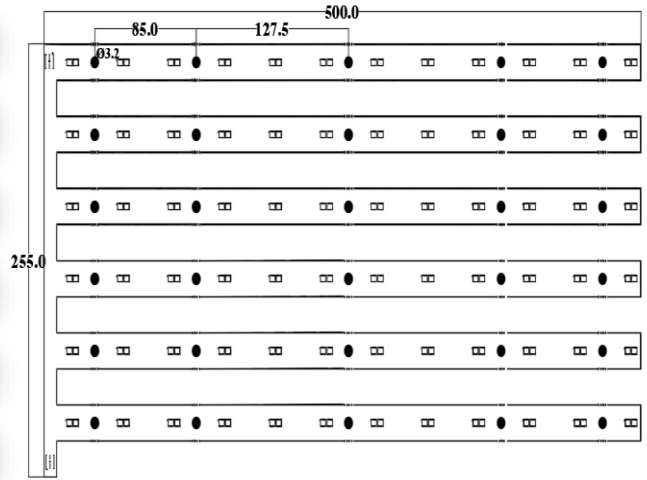
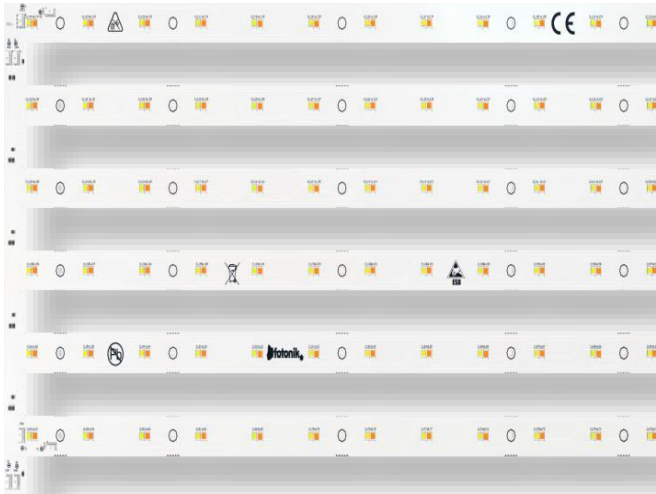
# Reactions of the biorhythm to daylight

(for people with normal working and rest periods)



HUMAN CENTRIC LIGHT. SOLUTIONS





## FLS-HCL-FLM-510255-2212-144-8CL-CC

### SPECIFICATIONS

- Ideal for LED panel.
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- Default driving method is constant current input
- Finger Tunable White LED module CCT Range from 3000°K up to 5000°K
- LEDs on the module connected as 12 Series 6 Parallel.
- Luminous flux range from 2893 lm
- Efficacy of the module up to 178 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- CEM1 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

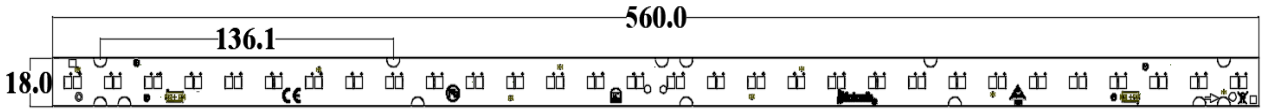
You may tell us the code below for ordering only PCB  
FLS-HCL-FLM-510255-G1C116-3030-144-CC

## Module Specifications

LED Type	NF2W757G-V3F1_Rvg0b	NF2W757G-V3F1_Rvc0b
LED Quantity	72	72
Correlated Color Temperature (CCT)	3000 °K	5000 °K
Color Rendering Index (CRI)	80+	80+
Module Operating Voltage (V)	32.28	32.28
Total Module Operating Current (mA)	500	
Module Operating Current (mA)	500	500
Branch Operating Current (mA)	83,3	83,3
Module Power (W)	16.2	16.2
Module Light Output (lm)	2760	2893
Module Efficacy (lm/W)	170	178
Dimension	500mm x 255mm	
Compatible Driver	21W-500mA	

Lumens tolerance of ±10% on intensity measurements.

LED's inside.



## FLS-HCL-LLM-560018-2100-060-8CL-CC

### SPECIFICATIONS

- Default driving method is constant current input.
- Linear Tunable White LED module CCT Range from 3000°K up to 5000°K
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- LEDs on the module connected as 6 Series 5 Parallel.
- Luminous flux range from 1421 lm
- Efficacy of the module up to 174 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 2$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### Module Specifications

LED Type	NF2W757G-V3F1_Rvg0b	NF2W757G-V3F1_Rvc0b
LED Quantity	30	30
Correlated Color Temperature (CCT)	3000 °K	5000 °K
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	16,2	16,2
Module Operating Current (mA)	500	500
Branch Operating Current (mA)	100	100
Module Power (W)	8,1	8,1
Module Light Output (lm)	1356	1421
Module Efficacy (lm/W)	166	174
Dimension	560mm x 18mm	
Compatible Driver	9W-500mA	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

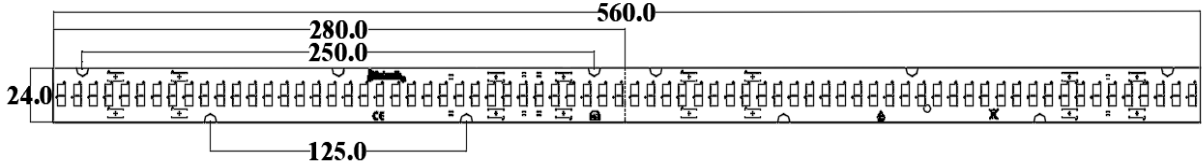
### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-HCL-LLM-560018-G1MC16-3030-060-CC

LED's inside.



## FLS-HCL-LLM-560024-42Q5-144-8CL-CC

### SPECIFICATIONS

- Default driving method is constant current input.
- Linear Tunable White LED module CCT Range from 3000°K up to 5000°K
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- LEDs on the module connected as 8 Series 9 Parallel.
- Luminous flux range from 2719 lm
- Efficacy of the module up to 101 lm/W  $T_c = 85\text{ °C}$
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- Push terminals for quick and simple wiring of LED module to LED module
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1\text{ W/m-K}$
- Operating Temperature from  $-40\text{ °C}$  up to  $+85\text{ °C}$
- Storage Temperature  $-40\text{ °C}$  up to  $+55\text{ °C}$
- Simple installation (e.g. push)
- Long life-time  $> 60,000$  hours
- 5-year limited warranty

### Module Specifications

LED Type	Sunlike Warm White	Sunlike Cool White
LED Quantity	72	72
Correlated Color Temperature (CCT)	3000 °K	5000 °K
Color Rendering Index (CRI)	95	
Module Operating Voltage (V)	25,6	
Module Operating Current (mA)	1050	1050
Branch Operating Current (mA)	116	116
Module Power (W)	26.88	26.88
Module Light Output (lm)	2511	2719
Module Efficacy (lm/W)	94	101
Dimension	560mm x 24mm	
Compatible Driver	50.4W-1050mA	

*Lumens tolerance of  $\pm 10\%$  on intensity measurements.*

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-HCL-LLM-560024-G1MC16-3030-144-CC



SEOUL SEMICONDUCTOR

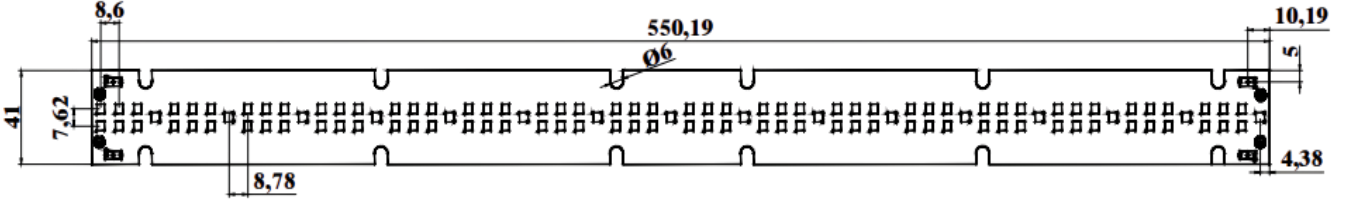
LED's inside.





## HORTICULTURE LIGHTING SOLUTIONS





## FLS-HOL-LLM-550041-11SL-112-8HC-CC

### SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 14 Series 8 Parallel.
- Typ. luminous flux of 8220 lm
- Efficacy of the module up to 159 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -20 °C up to +85 °C
- Storage Temperature -30 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

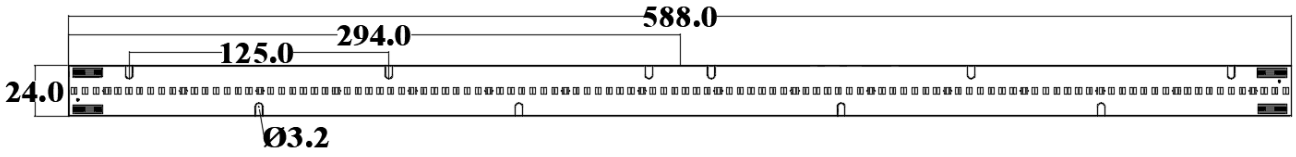
You may tell us the code below for ordering only PCB  
FLS-HOL-LLM-550041-G1MC16-3030-112-CC

### Module Specifications

LED Type	LM301H/SL
LED Quantity	112
PPF	141.8 $\mu\text{mol/s}$
PPE	2.74 $\mu\text{mol/J}$
Module Operating Voltage (V)	43,1
Module Operating Current (mA)	1200
Branch Operating Current (mA)	150
Module Power (W)	51,7
Module Light Output (lm)	8220
Module Efficacy (lm/W)	159
Dimension	550 mm x 41mm
Compatible Driver	55W-1200mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

**SAMSUNG** LED's inside.



## FLS-HOL-LLM-588024-11SL-112-8HC-CC

### SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 14 Series 8 Parallel.
- Typ. luminous flux of 8220 lm
- Efficacy of the module up to 159 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -20 °C up to +85 °C
- Storage Temperature -30 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

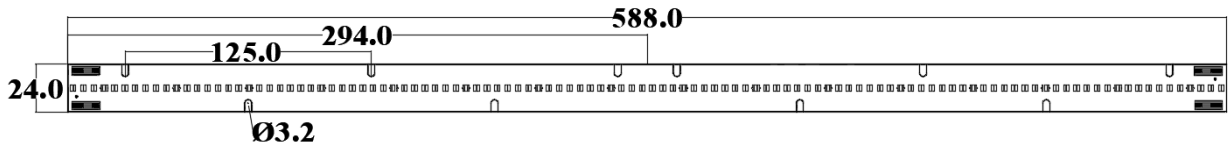
You may tell us the code below for ordering only PCB  
FLS-HOL-LLM-588024-G1MC16-3030-112-CC

**SAMSUNG** LED's inside.

### Module Specifications

LED Type	LM301H	LH351H
LED Quantity	96	16
PPF	141.8 $\mu\text{mol/s}$	
PPE	2.74 $\mu\text{mol/J}$	
Module Operating Voltage (V)	43,1	
Module Operating Current (mA)	1200	
Branch Operating Current (mA)	150	
Module Power (W)	51,7	
Module Light Output (lm)	8220	
Module Efficacy (lm/W)	159	
Dimension	588 mm x 24mm	
Compatible Driver	55W-1200mA	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## FLS-HOL-LLM-588024-11SL-056-8HC-CC

### SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 7 Series 8 Parallel.
- Typ. luminous flux of 4110 lm
- Efficacy of the module up to 159 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -20 °C up to +85 °C
- Storage Temperature -30 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

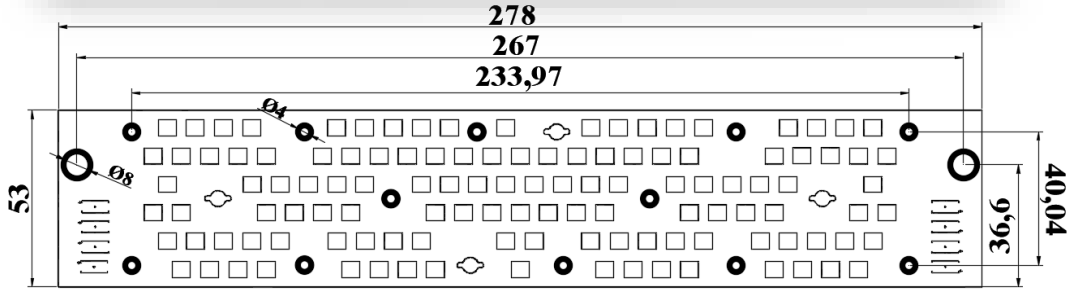
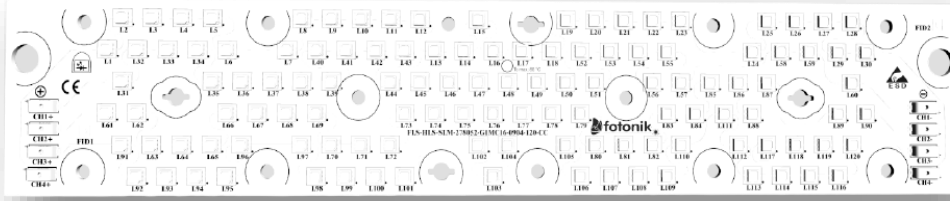
You may tell us the code below for ordering only PCB  
FLS-HOL-LLM-588024-G1MC16-3030-056-CC

**SAMSUNG** LED's inside.

### Module Specifications

LED Type	LM301H	LH351H
LED Quantity	48	8
PPF	70.92 $\mu\text{mol/s}$	
PPE	2.74 $\mu\text{mol/J}$	
Module Operating Voltage (V)	25,8	
Module Operating Current (mA)	1200	
Branch Operating Current (mA)	150	
Module Power (W)	31	
Module Light Output (lm)	4110	
Module Efficacy (lm/W)	159	
Dimension	588 mm x 24mm	
Compatible Driver	50W-1200mA	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



## FLS-HOL-SLM-278053-91VK-120-8HC-CC

### SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 4 channel 30 Series 1 Parallel.
- Typ. luminous flux of 7987 lm
- Efficacy of the module up to 525 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -20 °C up to +85 °C
- Storage Temperature -30 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

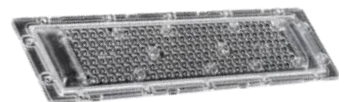
You may tell us the code below for ordering only PCB  
FLS-HOL-SLM-278053-G1MC16-3535-120-CC

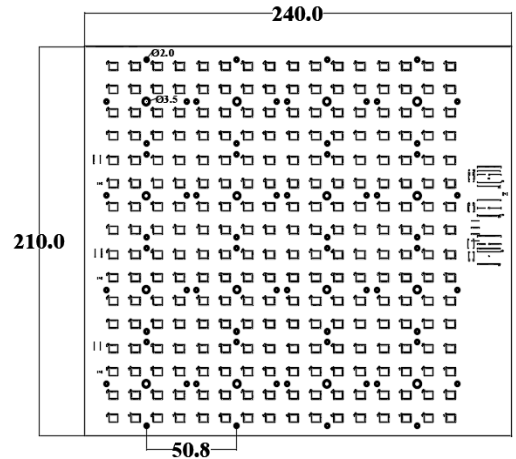
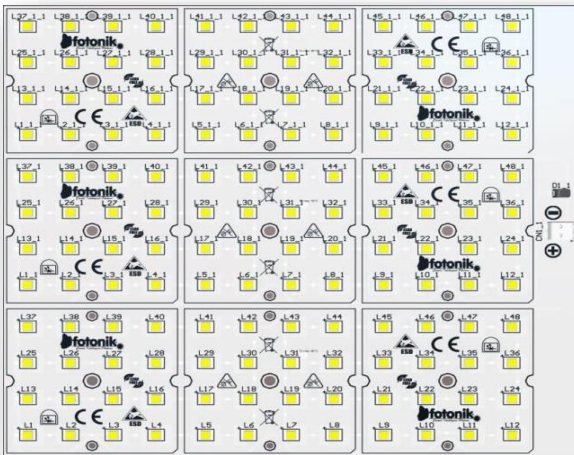
### Module Specifications

LED Type	GD	GH	GF	GW
	DASPA2.14	DASPA2.24	DASPA2.24	DASPA2.UC
Compatible Lens	DAHLIA-TL110			
LED Quantity	120			
Correlated Color Temperature (CCT)	5000 °K			
PPF( $\mu\text{mol/s}$ )	121,26	132,08	9,17	102
PPE( $\mu\text{mol/J}$ )	1,94	2,62	0,21	1,65
Module Operating Voltage (V)	89,1	72	62,1	88,5
Module Operating Current (mA)	700			
Branch Operating Current (mA)	700			
Module Power (W)	62,4	50,4	43,5	62
Module Light Output (lm)	32766	24353	15185	7987
Module Efficacy (lm/W)	525	483	349	129
Dimension	278 mm x 53 mm			
Compatible Driver	65W-700mA	55W-700mA	45W-700mA	65W-700mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

**OSRAM** LED's inside.





## FLS-HOL-SLM-240210-8FS2-144-8HC-CC SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 72 Series 2 Parallel.
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -20 °C up to +85 °C
- Storage Temperature -30 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

Sunplus 20	Part No	umol/s (type)	umol/s @ 700mA	Vf @ 700mA	LED Qty.	Total umol/s	Power Cons.
Deep Red	L1SP-DRD000 2F00000	2,08	4,16	2,3	72	299,52	115,92
Far Red	L1SP-FRD0002 F00000	0,091	0,182	2,3	36	6,552	57,96
Lime	L1SP-LME000 2F00000	1,62	2,916	2,9	36	104,976	73,08
				Total	144	411,048	246,96

You may tell us the code below for ordering only PCB  
FLS-ODL-SLM-240210-G1MC16-3030-144-CC

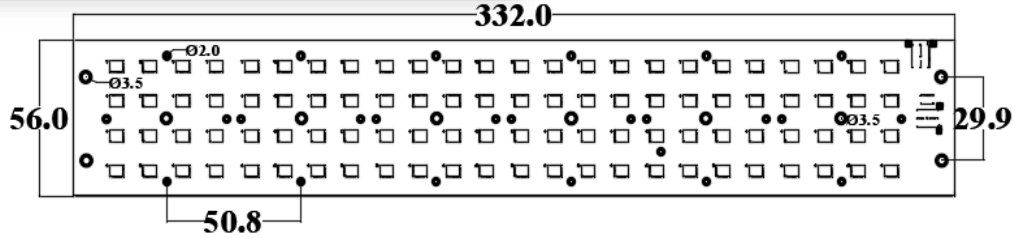
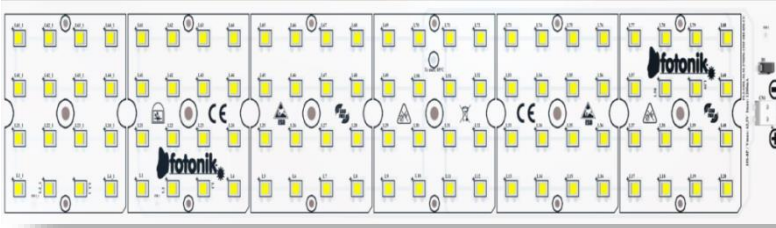
**LUMILEDS** LED's inside.

## Module Specifications

LED Type	SunPlus20
Compatible Lens	LEDIL Stradella 16
LED Quantity	144
PPF	410 $\mu\text{mol/s}$
PPE	1,85 $\mu\text{mol/J}$
Module Operating Voltage (V)	176,42
Module Operating Current (mA)	1400
Branch Operating Current (mA)	700
Module Power (W)	247
Module Light Output (lm)	---
Module Efficacy (lm/W)	---
Dimension	240 mm x 210mm
Compatible Driver	250W-1400mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.





## FLS-HOL-SLM-333056-8FS2-048-8HC-CC SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 24 Series 2 Parallel.
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-20^{\circ}\text{C}$  up to  $+85^{\circ}\text{C}$
- Storage Temperature  $-30^{\circ}\text{C}$  up to  $+55^{\circ}\text{C}$
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

## STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

Sunplus 20	Part No	umol/s (type)	umol/s @ 700mA	Vf @ 700mA	LED Qty.	Total umol/s	Power Cons.
Deep Red	L1SP-DRD000 2F00000	2,08	4,16	2,3	24	99,66	38,64
Far Red	L1SP-FRD000 2F00000	0,091	0,182	2,3	12	2,18	19,32
Lime	L1SP-LME000 2F00000	1,62	2,916	2,9	12	35	24,36
					Total	48	136,82

You may tell us the code below for ordering only PCB

FLS-ODL-SLM-333056-G1MC16-3030-096-CC

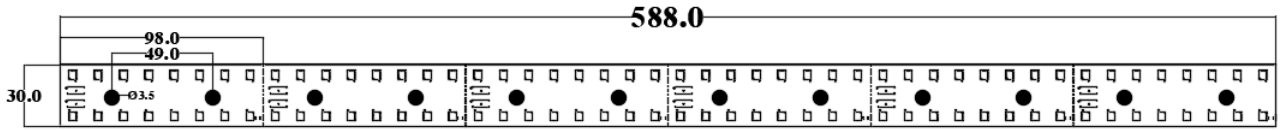
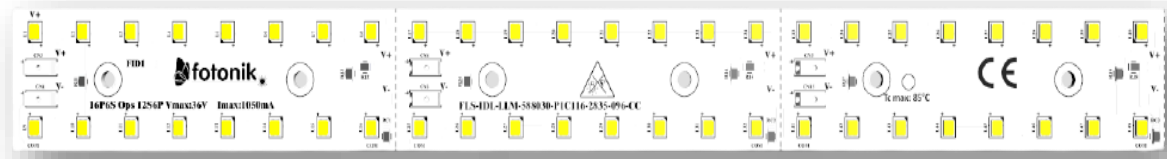
**LUMILEDS** LED's inside.

## Module Specifications

LED Type	SunPlus20
Compatible Lens	LEDIL Stradella 16
LED Quantity	48
PPF	137 $\mu\text{mol/s}$
PPE	1,85 $\mu\text{mol/J}$
Module Operating Voltage (V)	61
Module Operating Current (mA)	1400
Branch Operating Current (mA)	700
Module Power (W)	82
Module Light Output (lm)	---
Module Efficacy (lm/W)	----
Dimension	332 mm x 56mm
Compatible Driver	85W-1400mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.





## FLS-HOL-LLM-588030-8FS3-096-8HC-CC

### SPECIFICATIONS

- Ideal for industrial grow light
- Default driving method is constant current input
- LEDs on the module connected as 12 Series 8 Parallel.
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-20$  °C up to  $+85$  °C
- Storage Temperature  $-30$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 60,000$  hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-ODL-LLM-588030-P1MC16-2835-096-CC

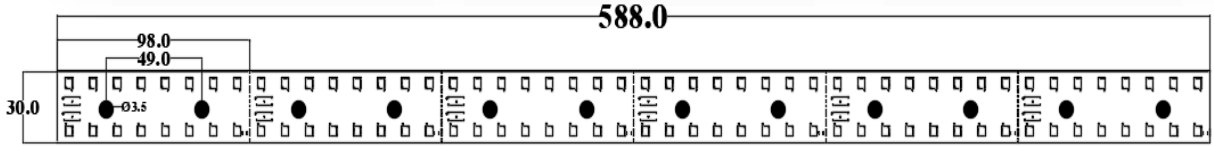
Module Specifications	
LED Type	SunPlus 2835
LED Quantity	96
PPF	49,728 $\mu\text{mol/s}$
PPE	1,8 $\mu\text{mol/J}$
Module Operating Voltage (V)	32,4
Module Operating Current (mA)	650
Branch Operating Current (mA)	81,2
Module Power (W)	21
Module Light Output (lm)	---
Module Efficacy (lm/W)	---
Dimension	588 mm x 30mm
Compatible Driver	27W-650mA

Lumens tolerance of  $\pm 10\%$  on intensity measurements.



LED's inside.



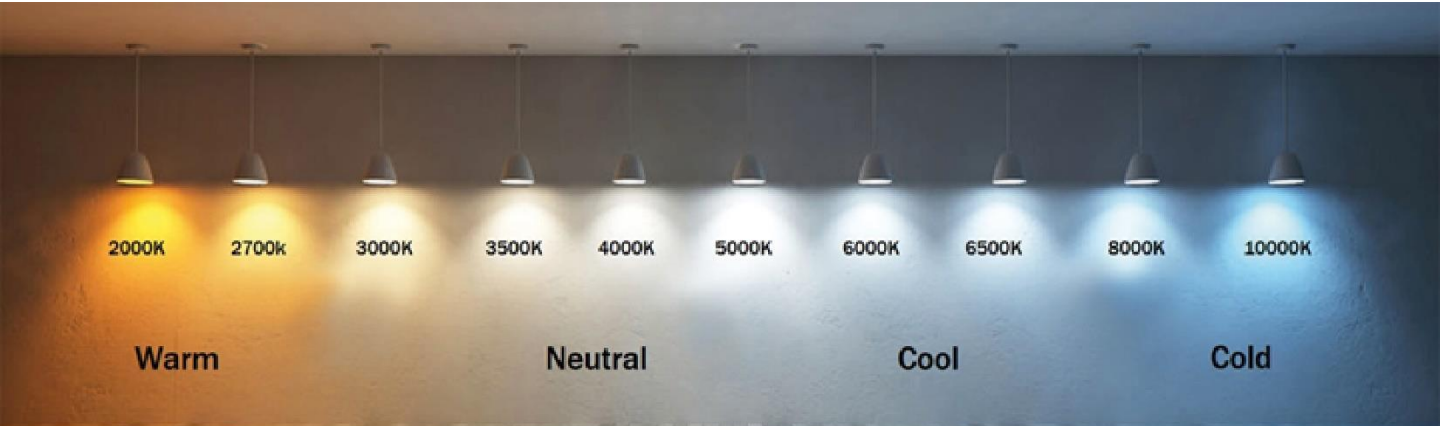


### FLS-HOL-LLM-588030-8FS3-096-8HC-CC

Color	Part No	umol/s (typ)	Driving Current (A)	umol/s @ 80mA	Vf @ 80mA	LED Qty.	Total umol/s	Power Cons.(W)	PPF/W
Purple %25 Blue	L1SP-PRP2002800000	0,74	0,08	0,518	2,7	96	49,728	20,736	2,4
Purple %12.5 Blue	L1SP-PRP1002800000	0,7	0,08	0,49	2,7	96	47,04	20,736	2,27
Purple %2.5 Blue	L1SP-PRP0002800000	0,63	0,08	0,441	2,7	96	42,336	20,736	2,08
Color	Part No	umol/s (typ)	Driving Current (A)	umol/s @ 80mA	Vf @ 80mA	LED Qty.	Total umol/s	Power Cons.(W)	PPF/W
Purple %25 Blue	L1SP-PRP2002800000	0,74	0,08	0,518	2,7	192	89,5104	43,5456	2,06
Purple %12.5 Blue	L1SP-PRP1002800000	0,7	0,08	0,49	2,7	192	84,672	43,5456	1,94
Purple %2.5 Blue	L1SP-PRP0002800000	0,63	0,08	0,441	2,7	192	76,2048	43,5456	1,75
Color	Part No	umol/s (typ)	Driving Current (A)	umol/s @ 80mA	Vf @ 80mA	LED Qty.	Total umol/s	Power Cons.(W)	PPF/W
Purple %25 Blue	L1SP-PRP2002800000	0,74	0,08	0,518	2,7	384	179,020	87,0912	2,06
Purple %12.5 Blue	L1SP-PRP1002800000	0,7	0,08	0,49	2,7	384	169,344	87,0912	1,94
Purple %2.5 Blue	L1SP-PRP0002800000	0,63	0,08	0,441	2,7	384	152,409	87,0912	1,75

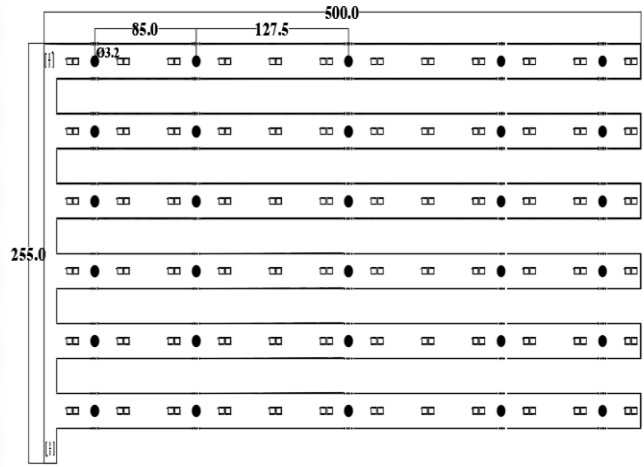
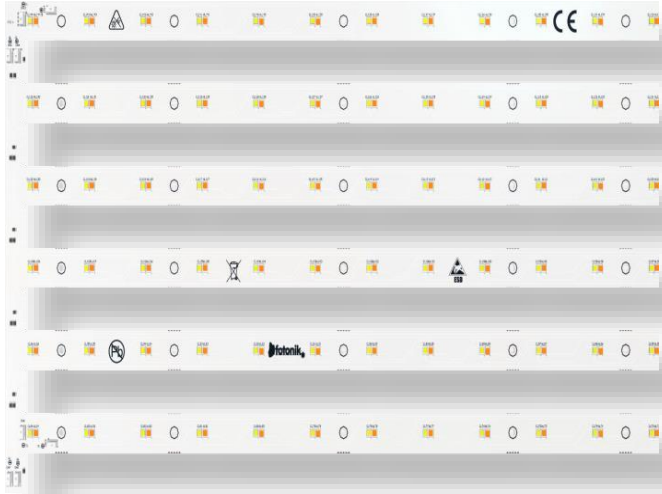
You may tell us the code below for ordering only PCB

**FLS-odL-LLM-588030-P1MC16-2835-096-CC**



**TUNABLE WHITE LIGHTING SOLUTIONS**





## FLS-TWL-FLM-510255-12RJ-144-8TW-CC

### SPECIFICATIONS

- Default driving method is constant current input
- Finger Tunable White LED module CCT Range from 2700°K up to 6500°K
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- LEDs on the module connected as 12 Series 6 Parallel.
- Luminous flux range from 3911 lm
- Efficacy of the module up to 166 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- CEM1 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-HCL-FLM-510255-G1C116-3030-144-CC

### Module Specifications

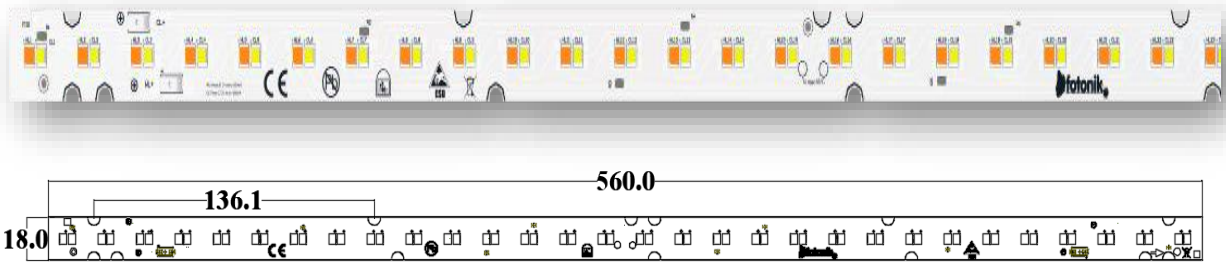
LED Type	LM281B+/RJ	
LED Quantity	72	72
Correlated Color Temperature (CCT)	2700 °K	6500 °K
Color Rendering Index (CRI)	80	
Module Operating Voltage (V)	36	36
Module Total Operating Current (mA)	700	
Module Operating Current (mA)	700	700
Branch Operating Current (mA)	116.6	116.6
Total Module Power(W)	25.2	
Module Power (W)	25.2	25.2
Module Light Output (lm)	3636	3911
Module Efficacy (lm/W)	154	166
Dimension	500mm x 255mm	
Compatible Driver	44.1W-700mA	

Lumens tolerance of ±10% on intensity measurements.

**SAMSUNG** LED's inside.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1



## FLS-TWL-LLM-560018-12RJ-060-8TW-CC

### SPECIFICATIONS

- Default driving method is constant current input.
- Linear Tunable White LED module CCT Range from 2700°K up to 6500°K
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- LEDs on the module connected as 6 Series 5 Parallel.
- Luminous flux range from 1938 lm
- Efficacy of the module up to 156 lm/W Tc = 85 °C
- CRI 80 is standart, CRI 70 and CRI 90 are available
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-HCL-LLM-560018-G1MC16-3030-060-CC

**SAMSUNG** LED's inside.

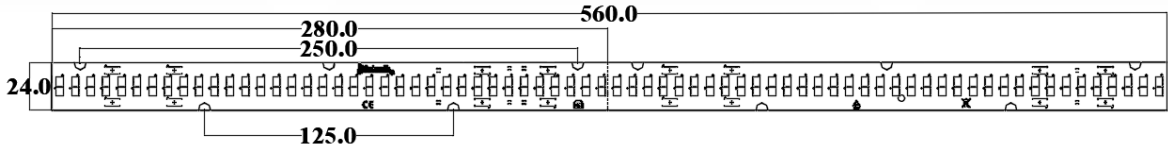
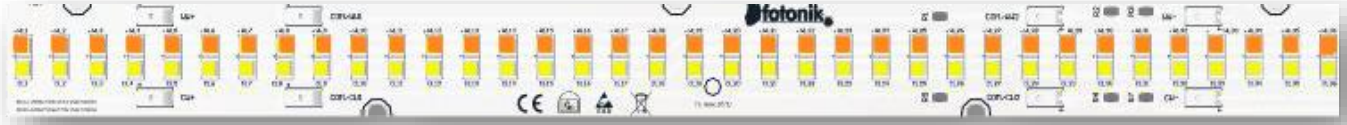
### Module Specifications

LED Type	LM281B+/RJ	
LED Quantity	60	
Correlated Color Temperature (CCT)	2700 °K	6500 °K
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	17,82	17,82
Module Total Operating Current (mA)	700	
Module Operating Current (mA)	700	700
Branch Operating Current (mA)	140	140
Total Module Power(W)	12,5	
Module Power (W)	12,5	12,5
Module Light Output (lm)	1801	1938
Module Efficacy (lm/W)	145	156
Dimension	560mm x 18mm	
Compatible Driver	15W-700mA	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1



## FLS-TWL-LLM-560024-12RJ-144-8TW-CC

### SPECIFICATIONS

- Default driving method is constant current input.
- Linear Tunable White LED module CCT Range from 2700°K up to 6500°K
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- LEDs on the module connected as 8 Series 9 Parallel.
- Luminous flux range from 4447 lm
- Efficacy of the module up to 156 lm/W Tc = 85 °C Outstanding system color tolerance MacAdam step 3 over the full operating area
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +55 °C
- Simple installation (e.g. push)
- Long life-time > 60,000 hours
- 5-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-TWL-LLM-560024-G1MC16-3030-144-CC

**SAMSUNG** LED's inside.

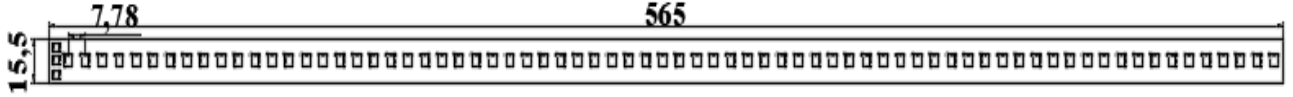
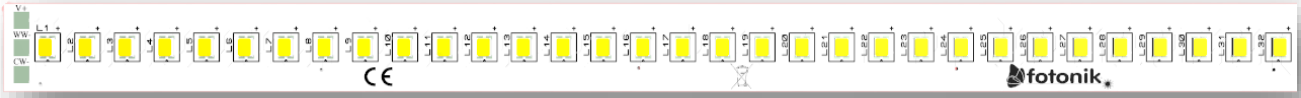
### Module Specifications

LED Type	LM281B+/RJ	
LED Quantity	72	72
Correlated Color Temperature (CCT)	2700 °K	6500 °K
Color Rendering Index (CRI)	80+	
Module Operating Voltage (V)	23,6	23,6
Module Total Operating Current (mA)	1200	
Module Operating Current (mA)	1200	1200
Branch Operating Current (mA)	133.3	133.3
Total Module Power(W)	28.4	
Module Power (W)	28.4	28.4
Module Light Output (lm)	4133	4447
Module Efficacy (lm/W)	146	156
Dimension	560mm x 24mm	
Compatible Driver	50.4W-1200mA	

Lumens tolerance of  $\pm 10\%$  on intensity measurements.

### Lumen Output Multiplier

LED	2700 °K (CRI 80)	3000 °K (CRI 80)	4000 °K (CRI 80)	5000 °K (CRI 80)	6500 °K (CRI 80)
LM281B+	0,927	0,955	1	1.013	1



## FLS-TWL-LLM-565016-42Q5-072-8TW-CC

### SPECIFICATIONS

- Default driving method is constant current input.
- Linear Tunable White LED module CCT Range from 2700°K up to 6500°K
- Optimal solution for Tunable White applications together with DALI DT8 or 2 channel low profile LED Drivers
- LEDs on the module connected as 8 Series 9 Parallel.
- Typ. luminous flux from 2097 lm
- Efficacy of the module up to 77 lm/W Tc = 85 °C
- Outstanding system color tolerance MacAdam step 3 over the full operating area
- FR4 used as PCB material
- Operating Temperature from -40 °C up to +85 °C
- Storage Temperature -40 °C up to +100 °C
- Long life-time > 60,000 hours
- 5-year limited warranty

### Module Specifications

LED Type	757G-MT			
LED Quantity	72		72	
Correlated Color Temperature (CCT)	2700 °K	6500 °K	2700 °K	6500 °K
Color Rendering Index (CRI)	80+			
Module Operating Voltage (V)	23,2	23,2	24,4	24,4
Module Total Operating Current (mA)	700		1200	
Module Operating Current (mA)	700	700	1200	1200
Branch Operating Current (mA)	77.8	77.8	133.3	133.3
Total Module Power(W)	16,24		29,28	
Module Power (W)	16,24	16,24	29,28	29,28
Module Light Output (lm)	1258	1231	2097	2051
Module Efficacy (lm/W)	77	75,8	71,62	70
Dimension	565mm x 15,5mm			
Compatible Driver	44.1W-700mA 2 Channel		41.1W-1200mA 2 Channel	

Lumens tolerance of ±10% on intensity measurements.

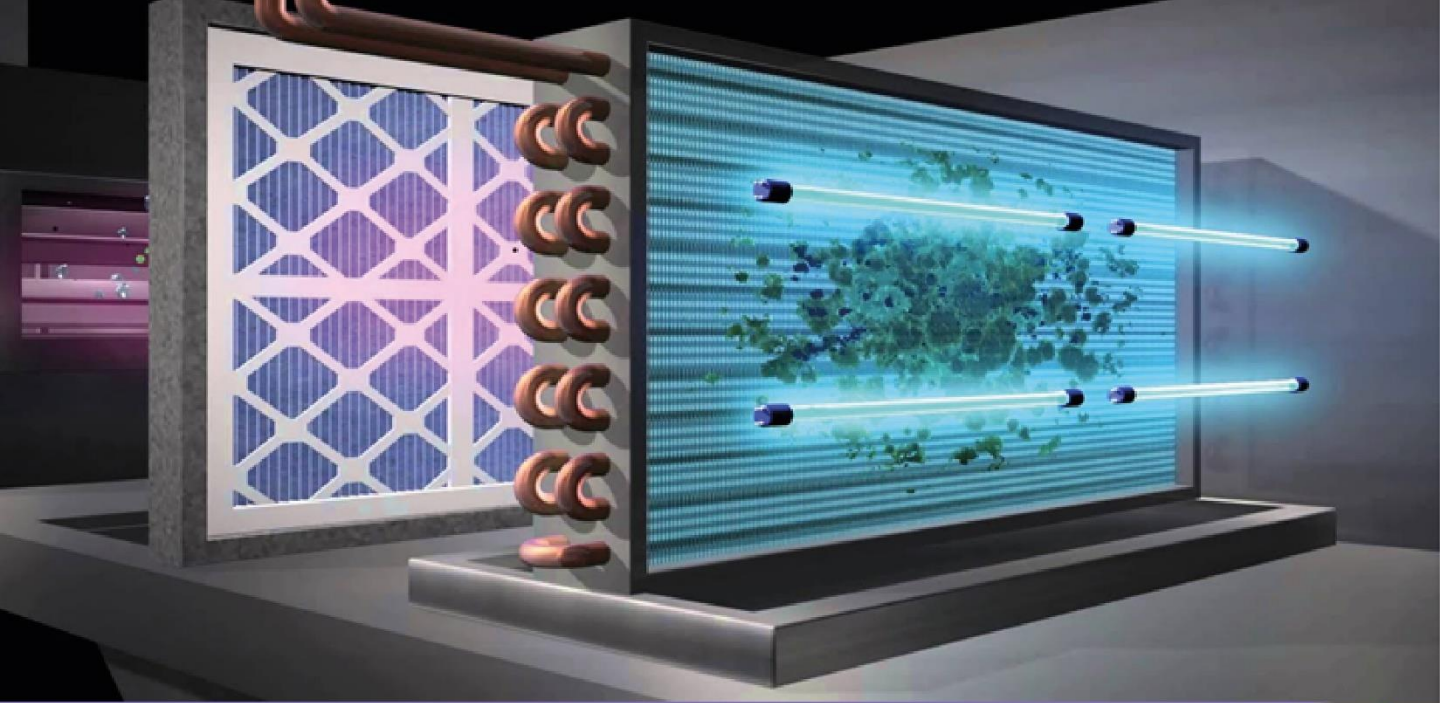
### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

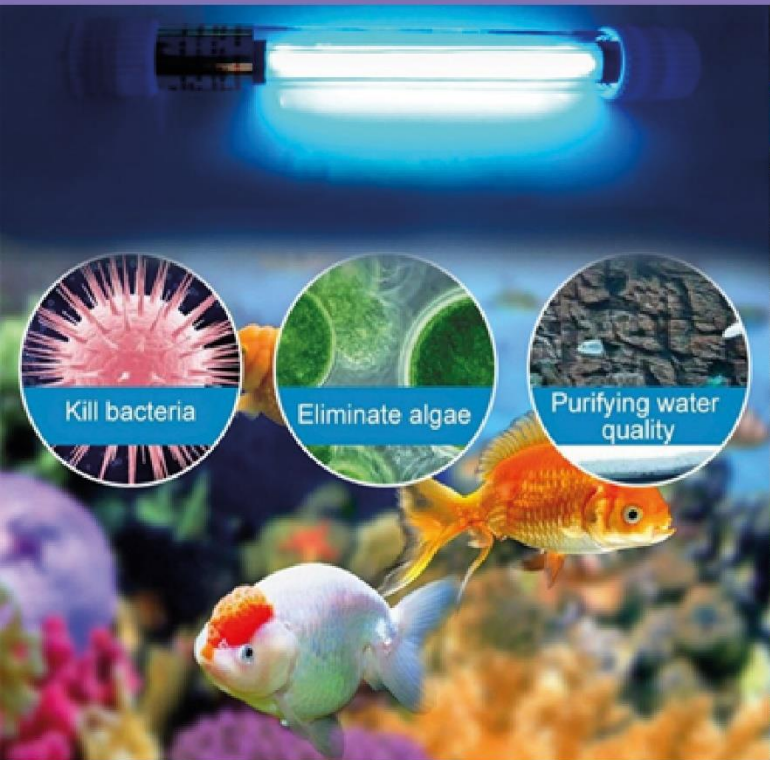
You may tell us the code below for ordering only PCB

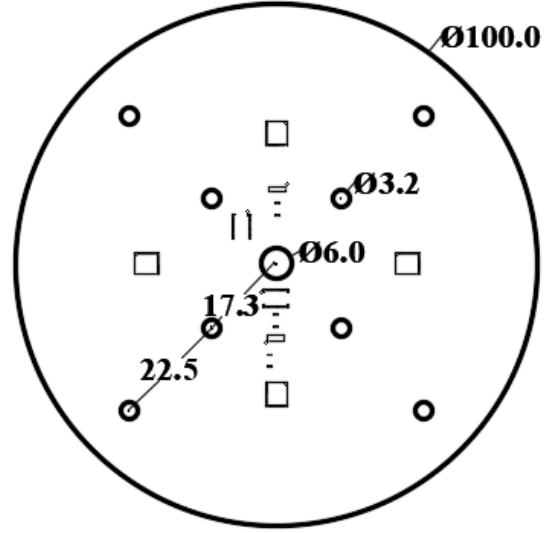
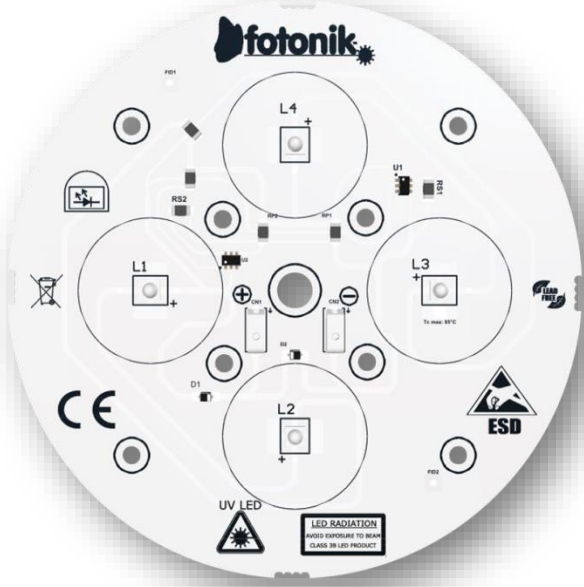
FLS-TWL-LLM-565016-G2F416-3030-072-CC

LED's inside.



## ULTRAVIOLET LIGHTING SOLUTIONS





## FLS-UVL-RLM-100100-AC0B-004-275-CV

### SPECIFICATIONS

- Default driving method is constant voltage input as 24V
- This driving method is optional, you can choose constant current with IC or resistor driver
- Wavelength from 265 up to 280 nm, typical 275 nm
- LEDs on the module connected as 2 Series 2 Parallel.
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 10,000$  hours
- 2-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-UVL-RLM-100100-G1MC16-3535-004-CV

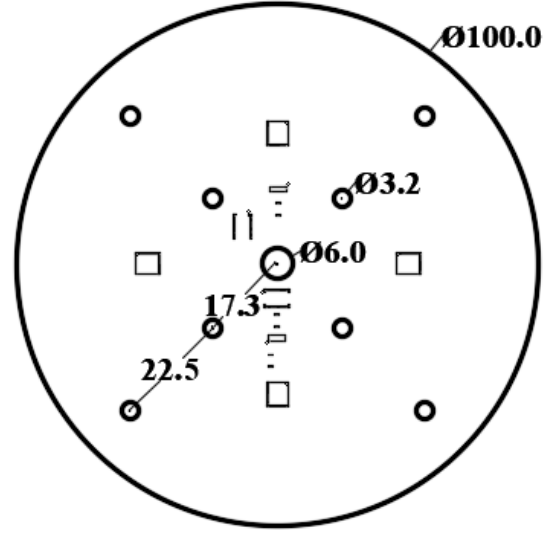
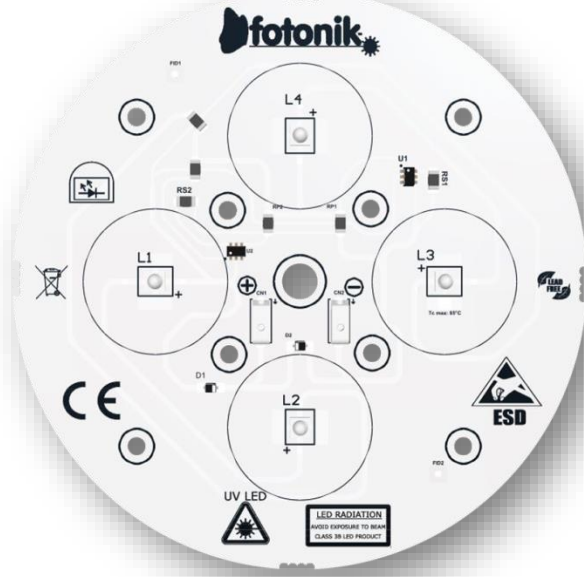
### Module Specifications

LED Type	PB2D-1CLA-TC
LED Quantity	4
Peak Wavelength (nm)	275
Radiometric Power (mW)	42
Module Operating Voltage (V)	13,6
Module Operating Current (mA)	200
Branch Operating Current (mA)	100
Module Power (W)	3.84
Dimension	100mm x 100mm
Compatible Driver	6W-24V
Compatible Driver	6W-200mA

Radiometric power tolerance of  $\pm 10\%$  on intensity measurements.

LED's inside.





## FLS-UVL-RLM-100100-AB0C-004-309-CV

### SPECIFICATIONS

- Default driving method is constant voltage input
- Wavelength from 303 up to 315 nm, typical 309 nm
- LEDs on the module connected as 2 Series 2 Parallel.
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 10,000$  hours
- 2-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

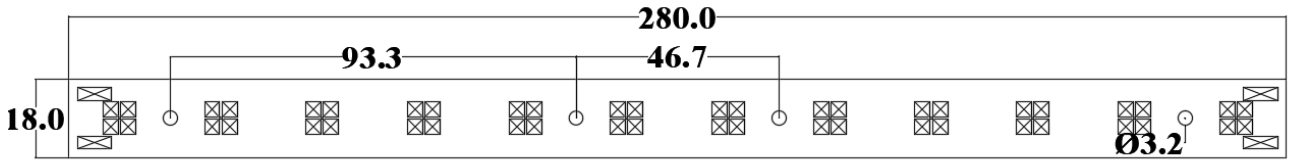
You may tell us the code below for ordering only PCB  
FLS-UVL-RLM-100100-G1MC16-3535-004-CV

LED's inside.

### Module Specifications

LED Type	PB2D-UCLA-KB
LED Quantity	4
Peak Wavelength (nm)	309
Radiometric Power (mW)	42
Module Operating Voltage (V)	13,6
Module Operating Current (mA)	40
Branch Operating Current (mA)	20
Module Power (W)	0,54
Dimension	100mm x 100mm
Compatible Driver	24V

Radiometric power tolerance of  $\pm 10\%$  on intensity measurements.



## FLS-UVL-LLM-280018-AC0B-048-275-CV

### SPECIFICATIONS

- Can be driving with constant current or constant voltage according to request.
- Wavelength from 303 up to 315 nm, typical 309 nm
- LEDs on the module connected as 2 Series 24 Parallel.
- Wavelength from 265 up to 280 nm, typical 275 nm
- LEDs on the module connected as 2 Series 12 Parallel or 2 Series 24 Parallel.
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 10,000$  hours
- 2-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB

FLS-UVL-LLM-280018-G1MC16-3535-048-CV

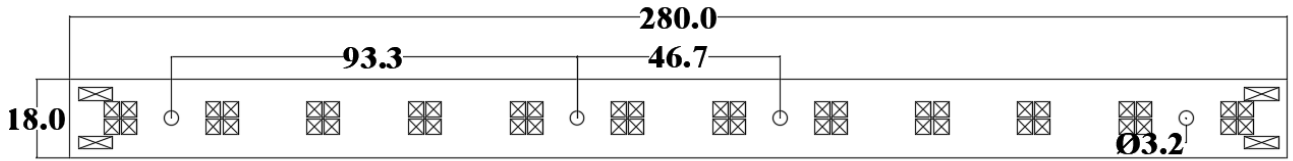
### Module Specifications

LED Type	PB2D-1CLA-TC	
LED Quantity	24	48
Peak Wavelength (nm)	275	
Radiometric Power (mW)	252	504
Module Operating Voltage (V)	12	
Module Operating Current (mA)	1200	2400
Branch Operating Current (mA)	100	100
Module Power (W)	14,4	28,8
Dimension	280mm x 24mm	
Compatible Driver	12V	

Radiometric power tolerance of  $\pm 10\%$  on intensity measurements.



LED's inside.



## FLS-UVL-LLM-280018-AB0C-048-309-CV

### SPECIFICATIONS

- Can be driving with constant current or constant voltage according to request.
- Wavelength from 303 up to 315 nm, typical 309 nm
- LEDs on the module connected as 2 Series 12 Parallel or 2 Series 24 Parallel.
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 10,000$  hours
- 2-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-UVL-LLM-280018-G1MC16-3535-048-CV

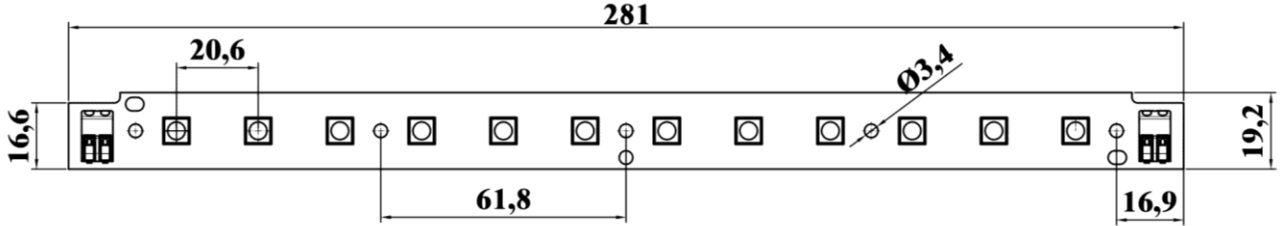
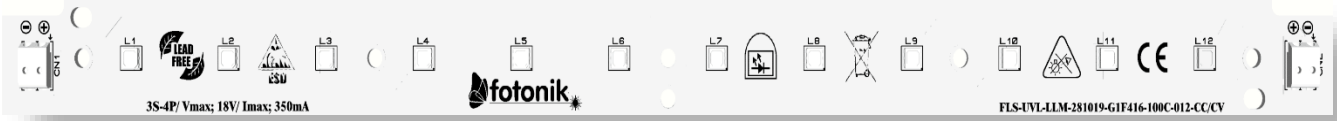
### Module Specifications

LED Type	PB2D-UCLA-KB	
LED Quantity	24	48
Peak Wavelength (nm)	309	
Radiometric Power (mW)	79,2	158,4
Module Operating Voltage (V)	12	
Module Operating Current (mA)	250	500
Branch Operating Current (mA)	20	20
Module Power (W)	8,4	16,8
Dimension	280mm x 24mm	
Compatible Driver	12V	
Compatible Driver	9W-250mA	20W-500mA

Radiometric power tolerance of  $\pm 10\%$  on intensity measurements.



LED's inside.



## FLS-UVL-LLM-281019-AC0B-012-275-CC

### SPECIFICATIONS

- Default driving method is constant current input
- Wavelength from 265 up to 280 nm, typical 275 nm
- LEDs on the module connected as 3 Series 4 Parallel.
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 10,000$  hours
- 2-year limited warranty

### Module Specifications

LED Type	PB2D-1CLA-TC
Compatible Lens	LEDIL Violet
LED Quantity	12
Peak Wavelength (nm)	275
Radiometric Power (mW)	113,6
Module Operating Voltage (V)	18
Module Operating Current (mA)	350
Branch Operating Current (mA)	87,5
Module Power (W)	6,3
Dimension	281mm x 19mm
Compatible Driver	10W-350mA

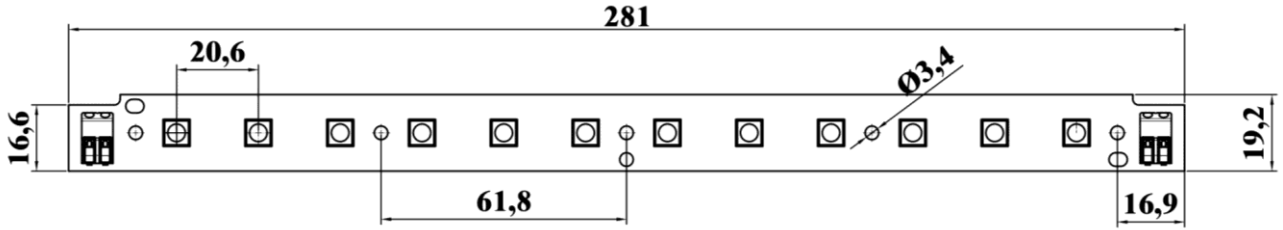
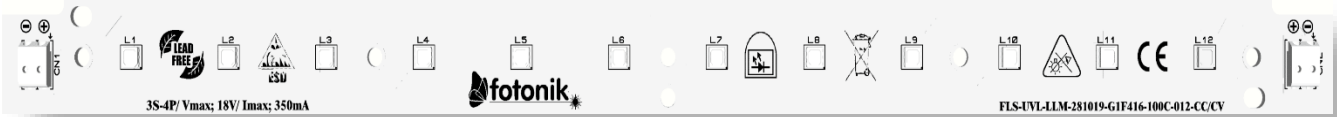
Radiometric power tolerance of  $\pm 10\%$  on intensity measurements.

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-UVL-LLM-281019-G1F416-3535-012-CV

LED's inside.



## FLS-UVL-LLM-281019-AB0C-012-309-CV

### SPECIFICATIONS

- Default driving method is constant voltage input
- Wavelength from 303 up to 315 nm, typical 309 nm
- LEDs on the module connected as 3 Series 4 Parallel.
- MCPCB used as PCB material
- Thermal Conductivity  $\geq 1$  W/m-K
- Operating Temperature from  $-40$  °C up to  $+85$  °C
- Storage Temperature  $-40$  °C up to  $+55$  °C
- Simple installation (e.g. push)
- Long life-time  $> 10,000$  hours
- 2-year limited warranty

### STANDARTS

IEC 62031 / IEC 62471 / IEC 61547 / IEC 61000-4-2

You may tell us the code below for ordering only PCB  
FLS-UVL-LLM-281019-G1F416-3535-012-CV

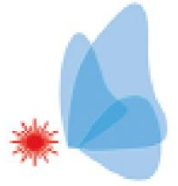


LED's inside.

### Module Specifications

LED Type	PB2D-UCLA-KB
Compatible Lens	LEDIL Violet
LED Quantity	12
Peak Wavelength (nm)	309
Radiometric Power (mW)	39,6
Module Operating Voltage (V)	18
Module Operating Current (mA)	80
Branch Operating Current (mA)	20
Module Power (W)	1,44
Dimension	281mm x 19mm
Compatible Driver	Cons. Voltage 18V

Radiometric power tolerance of  $\pm 10\%$  on intensity measurements.



## FOTONİK TEKNOLOJİ VE MÜHENDİSLİK A.Ş.



LVD EMC CE





# fotonik

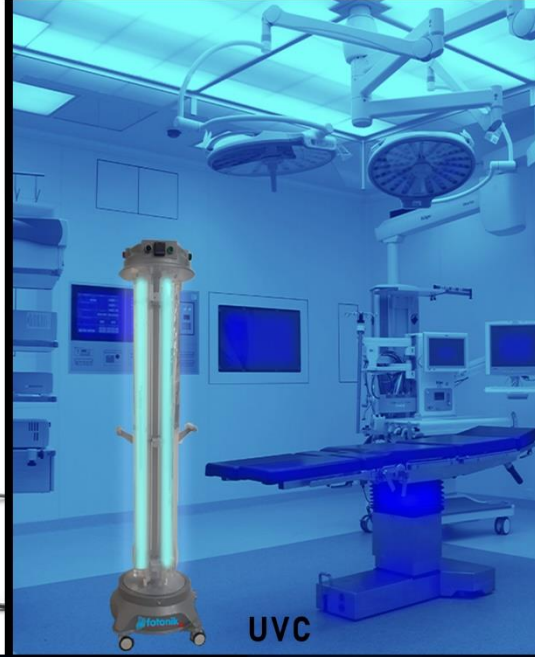
*Creates Intelligent Photons*



UVA



UVB



UVC



9001:2015



14001:2015



45001:2018



13485:2016



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