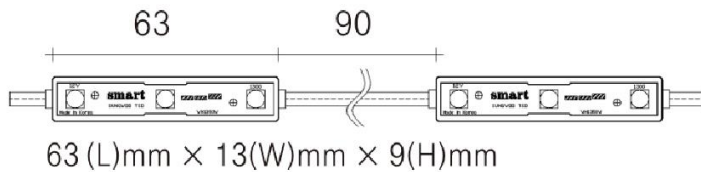


Product Photo



Features

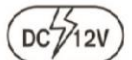
- ▶ High efficiency module
 - Samsung LED (Korea)
- ▶ Diffusion Lens Type.
- ▶ Waterproof rate : IP68
- ▶ Max in Series - 50 pcs
- ▶ Easy attachment with double side tape
- ▶ Life Time - over 50,000 hours
- ▶ CB, CE test acquired



IP 68
waterproof



50,000H
LIFE TIME



DC SERIES

IP68 KS CE RoHS

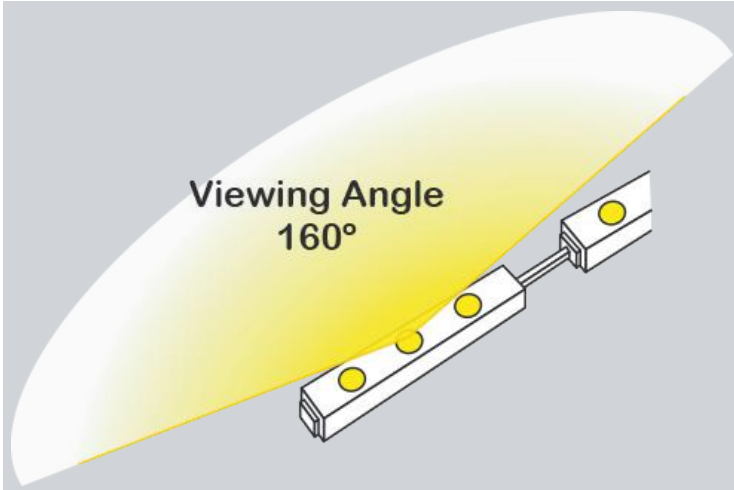


Specification

Product Code	F3P-SA11-CW10
Power Dissipation	1.1W
Input Voltage	DC 12V
Input Current	120mA
Correlated Color Temperature(K)	10000K
Luminous Flux(lm/pcs)	120
CRI(color rendering index, Ra)	>75
LED Spec	Samsung LED 2835 x 3pcs
View Angle	160 degree
Max in Series	50 pcs
Module Pitch	100mm, ±5mm
Dimension	63(L)mmX13(W)mmX9(H)mm
Piece weight	9gr
Operating temperature	-40°C~+85°C
Waterproof rated	IP68
Life Time	50,000hr
Inner Packing	200pcs polybag, 2kgs
Carton	1,000pcs, 10kg (size: 510x390x170(H)mm)

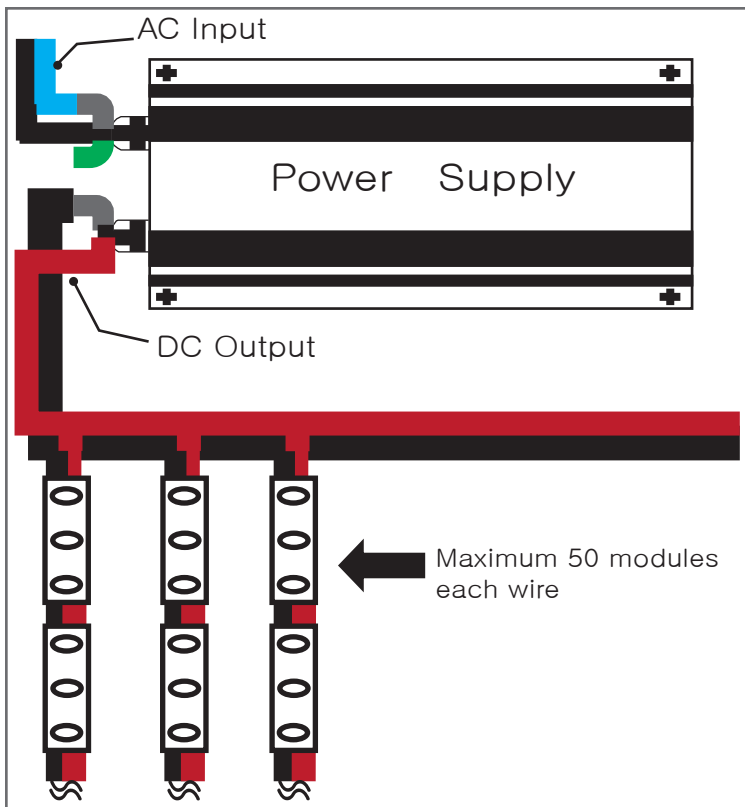
Special Feature

Dimension



Best view angle	160°
LED driver	Constant Voltage Driving System
Diffusion Lens in cap type with unique design	

Wiring Guide



Max. in Series	50 modules
Maximum length of module	8M
Can used to cut each module as needed	

SAMSUNG LED Chip Specification

Luminous Flux Bins(IF = 150 mA, Ts= 25°C)

Nominal CCT (K)	CRI (Ra) Min.	Product Code	Flux Bin	Flux Range (Φv, lm)	Range (cd)
10000	75	SPMWHT228FN4BAA0S0	S1	45.0 ~ 50.0	-
			S2	50.0 ~ 55.0	-
			S3	55.0 ~	-

Color Bins (IF = 150 mA, Ts= 25 °C)

Nominal CCT (K)	CRI (Ra) Min.	Product Code	Color Rank	Chromaticity Bins
10000	75	SPMWHT228FN4BAA0S0	A0 (Whole bin)	A3, A4
			-	-

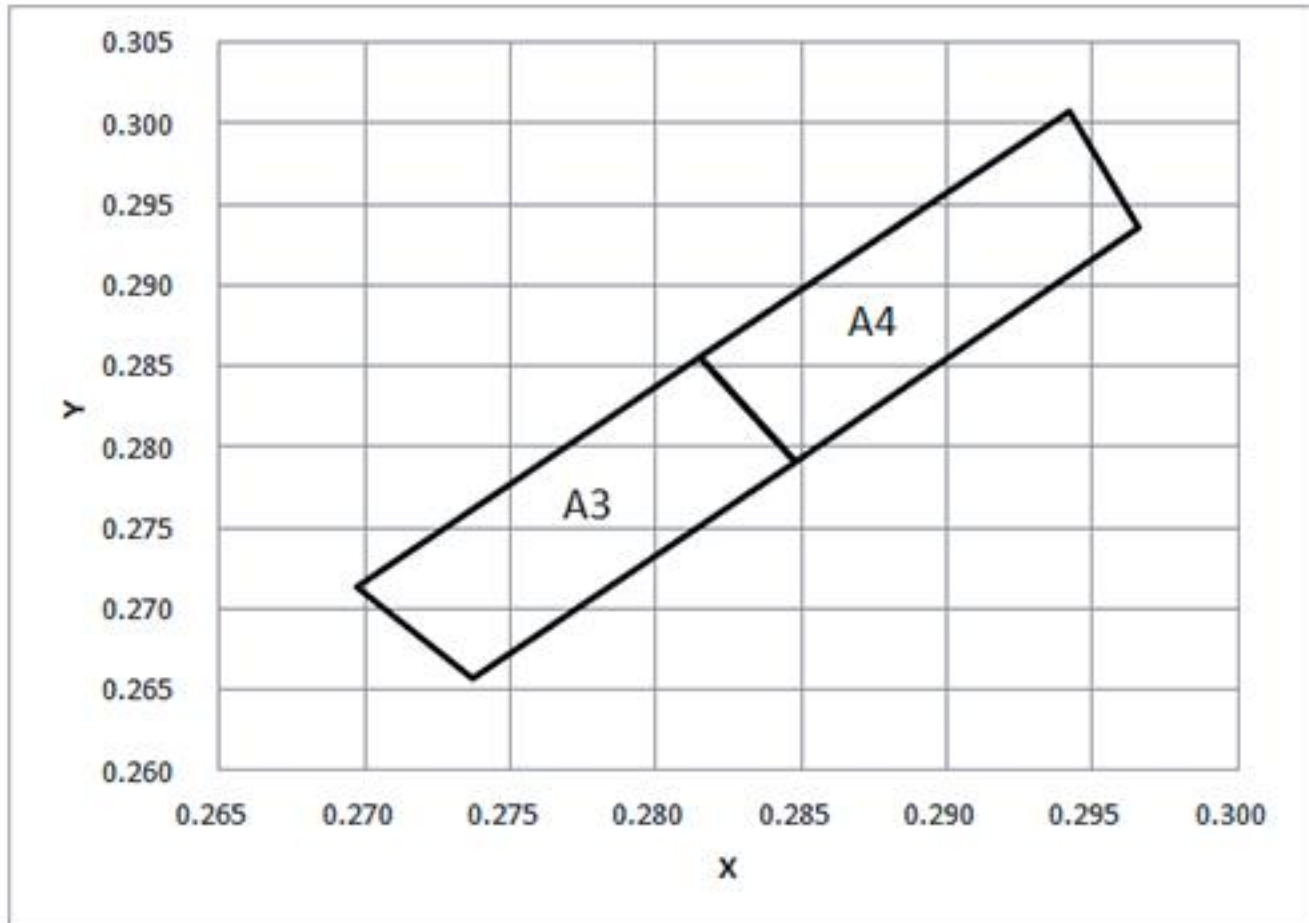
Voltage Bins (IF = 150 mA, Ts = 25 °C)

Nominal CCT (K)	CRI (Ra) Min.	Product Code	Voltage Rank	Voltage Bin	Voltage Range (V)
TOTAL	80	SPMWHT228FN4	BA	A2	2.9 ~ 3.0
				A3	3.0 ~ 3.1
				A4	3.1 ~ 3.2
				A5	3.2 ~ 3.3
				A6	3.3 ~ 3.4

Chromaticity Region & Coordinates (IF = 150 mA, Ts = 25 °C)

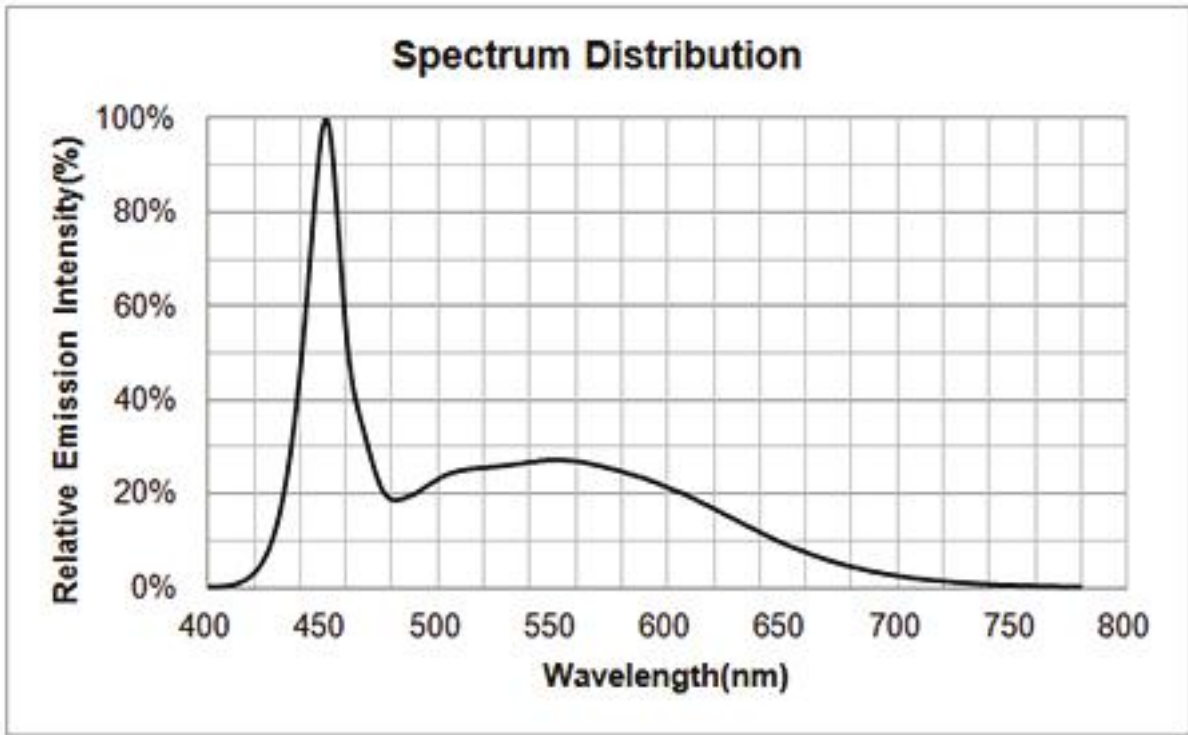
Table	Rank	CIE X	CIE Y
A0	A3	0.2737	0.2657
		0.2848	0.2791
		0.2815	0.2855
		0.2697	0.2713
	A4	0.2848	0.2791
		0.2966	0.2935
		0.2942	0.3008
		0.2815	0.2855

Chromaticity Region & Coordinates

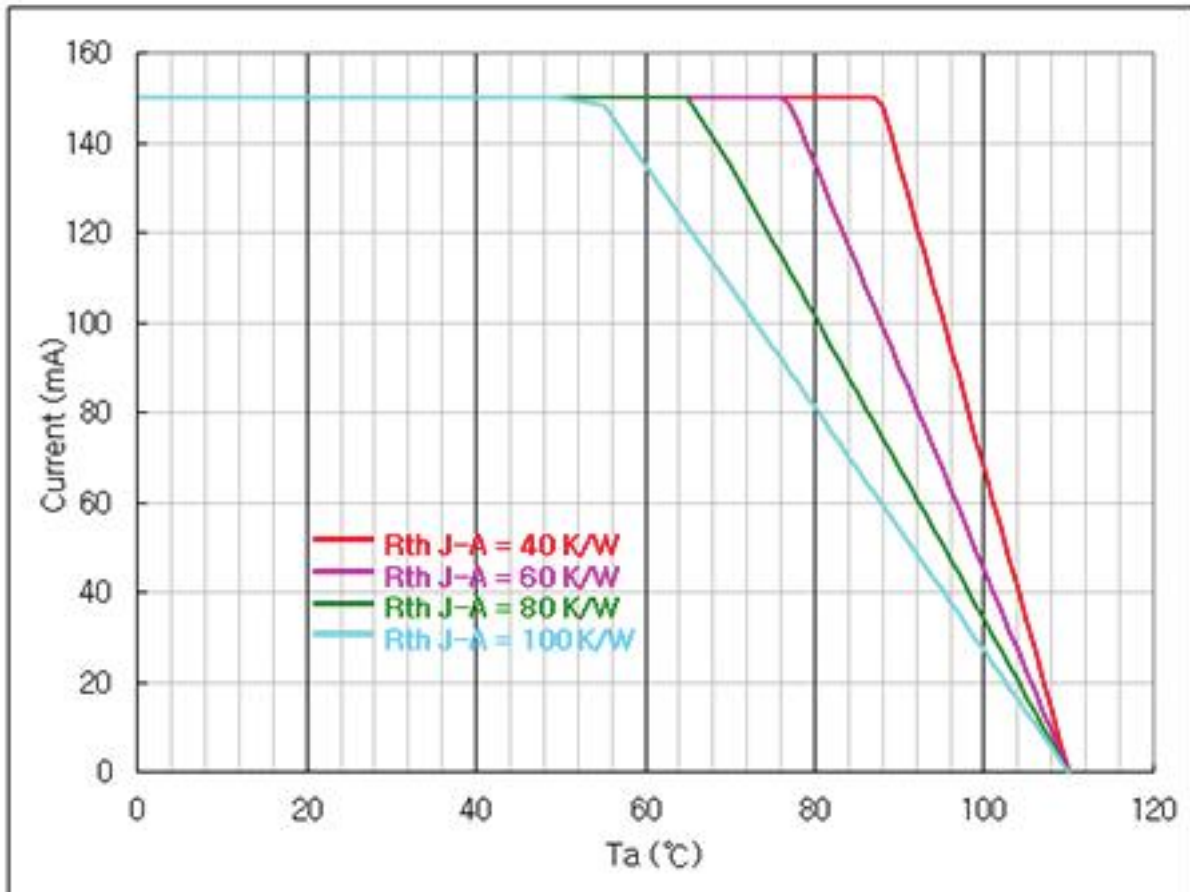


Spectrum Distribution (IF = 150 mA, Ts = 25 °C)

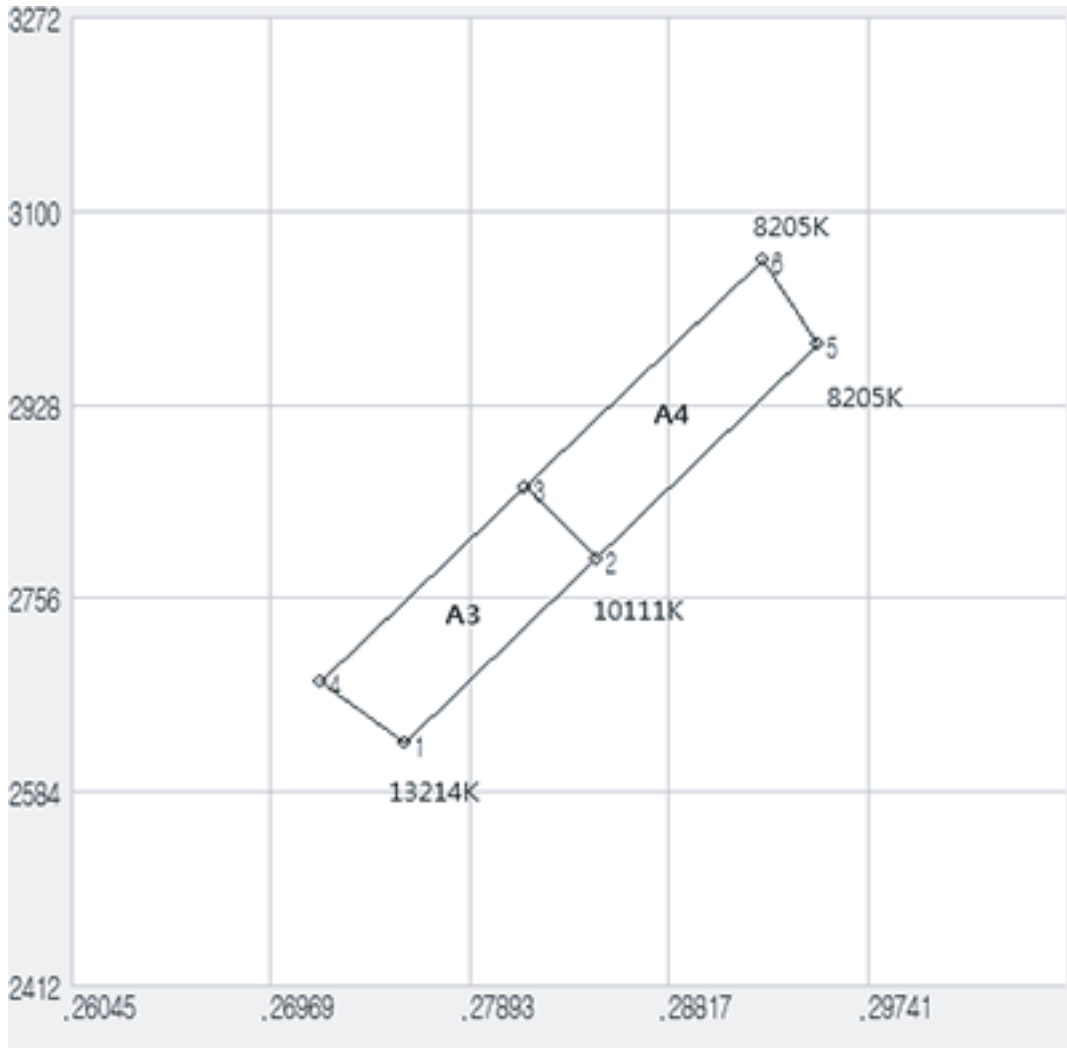
CCT: 10000 K(75 CRI)



Derating curve



Color Temperature Distribution



CCT Rank

	A3 (10111K ~ 13214K)			A4 (8205K ~ 10111K)			
	X	Y	Color Temperature		X	Y	Color Temperature
Coordinate 1	0.2759	0.2627	13214K	Coordinate 2	0.2848	0.2791	10111K
Coordinate 2	0.2848	0.2791	10111K	Coordinate 3	0.2815	0.2855	10111K
Coordinate 3	0.2815	0.2855	10111K	Coordinate 5	0.2951	0.2981	8205K
Coordinate 4	0.2720	0.2681	13214K	Coordinate 6	0.2926	0.3057	8205K

IV (iF=60mA) : min 6.2 cd ~ typ 7.3 cd ~ max 8.6 cd

vF : 2.9 ~ 3.4 (0.1v Rank Sort)

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