

About Samsung Electronics Co., Ltd.

Samsung Electronics Co. Ltd inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and semiconductor and LED solutions. For the latest news, please visit the Samsung Newsroom at <http://news.samsung.com>.

Copyright © 2020 Samsung Electronics Co., Ltd. All rights reserved.
Samsung Electronics reserves the right to modify, at its sole discretion, the design, packaging, specifications, and features shown herein without notice at any time.

Samsung Electronics Co., Ltd.
Samsung-ro 1, Giheung-gu, Yongin-si,
Gyeonggi-do, 17113 Korea

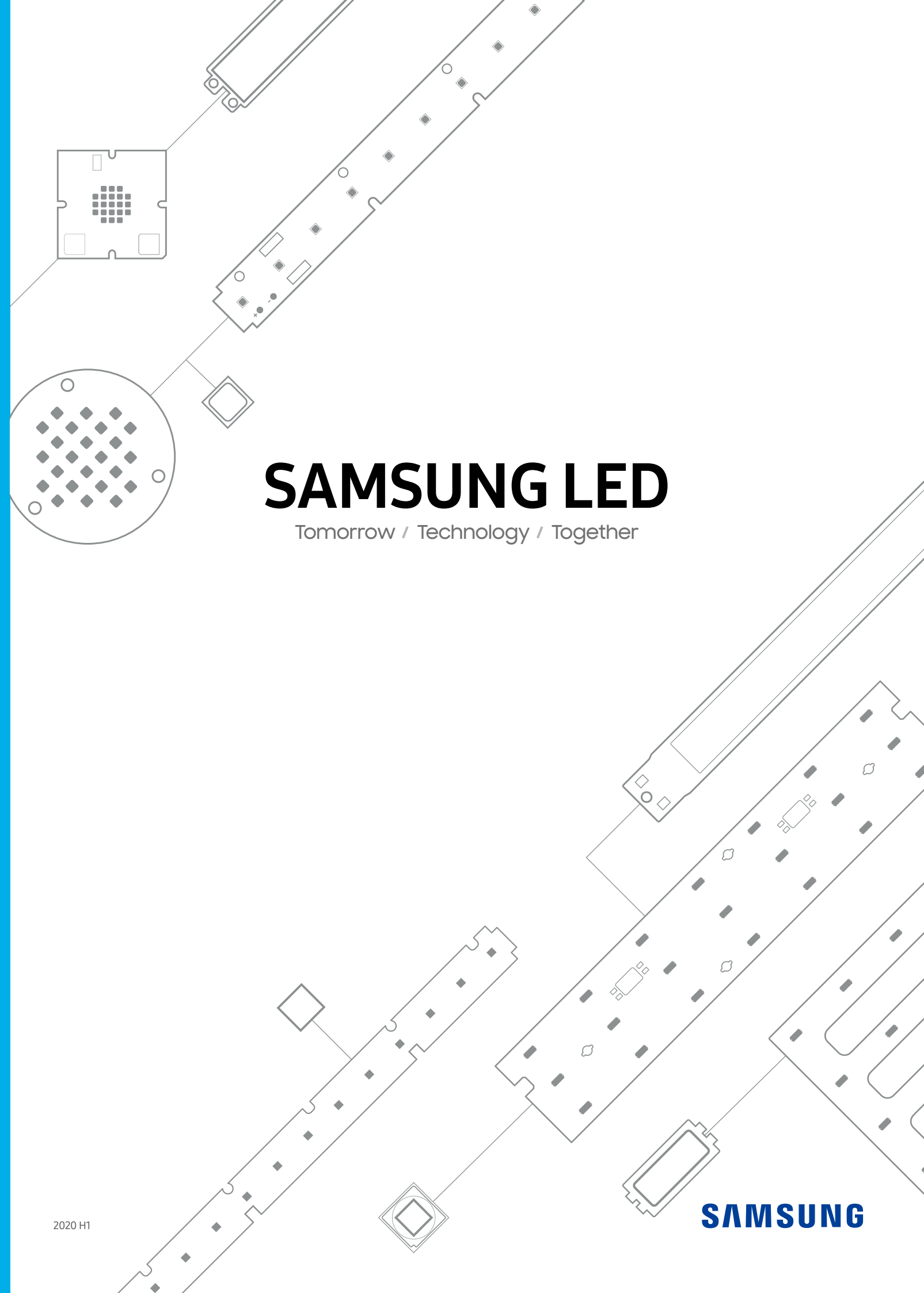
www.samsungled.com

SAMSUNG LED

SAMSUNG

SAMSUNG LED

Tomorrow / Technology / Together



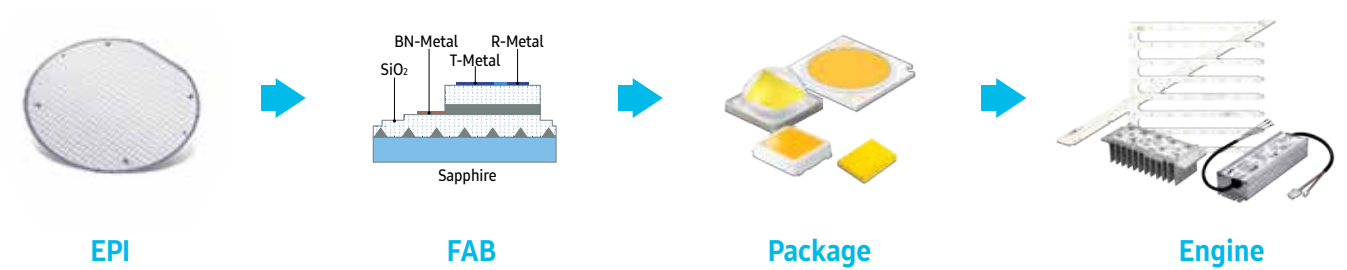
Overview & Technology

Samsung Electronics Co., Ltd. is a global leader in consumer electronics and the core components that go into them.



Samsung aspires to create new technologies and innovative products that inspire the world, while delivering new value to enhance the lives of customers, partners and employees.

Vertically Integrated Solution Provider



Samsung Electronics



1969
Company
Founded



Vision 2020
Inspire the World,
Create the Future



309,630+
Employees
in 79 Countries

Reliable, On-Time Delivery without Delays



Innovation & Market Leadership



7
Design Centers



37
R&D Centers



6th
Best Global Brand 2019

Life and LED Business Solution Partner

LED technology has started a new era of innovation and game-changing trends affecting diverse applications and lighting industries.

In particular, as countries around the world strengthen energy conservation programs and push for related legislation enforcement,

demand for energy-efficient lighting is on the rise at a rapid pace.

Samsung's LED Business aims to achieve excellence as a long life,

energy saving and eco-friendly light source supplier in lighting applications.

Samsung's advanced semiconductor manufacturing expertise serves as a strong foundation to deliver state-of-the-art LED devices.

CONTENTS

Package

- 09 CSP LEDs
- 15 Mid Power LEDs
- 36 Filament LEDs
- 38 High Power LEDs
- 44 COB LEDs



Module

- 92 Ambient Light
- 100 Industrial Light
- 105 Down Light
- 108 Outdoor Light



Driver

- 114 Ambient Light
- 114 Down & Spot Light
- 115 Outdoor Light

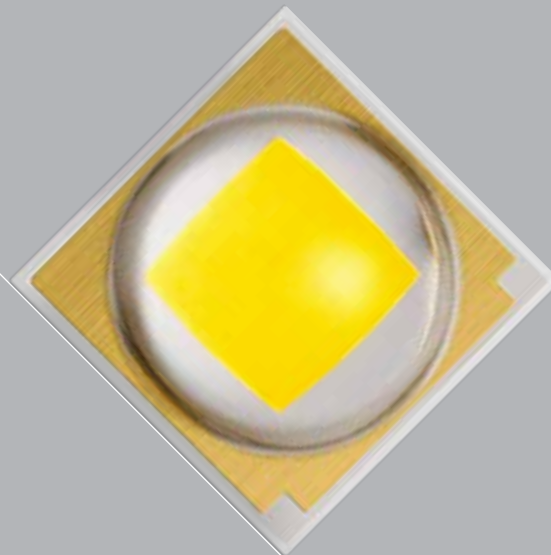
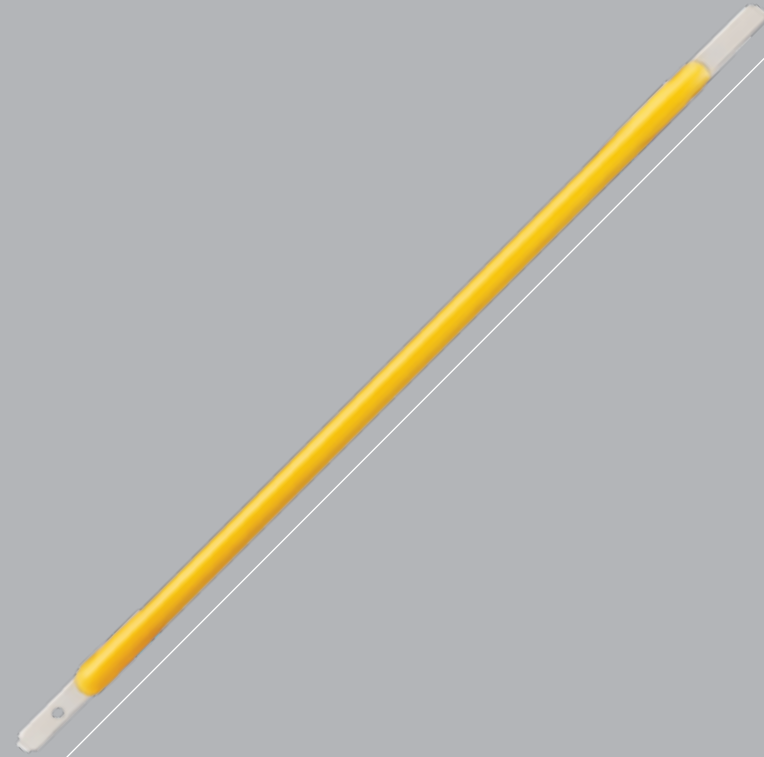


Specialty Lighting

- 122 Human-centric Light
- 124 Horticulture Light
- 129 Retail Light
- 136 Sports Light

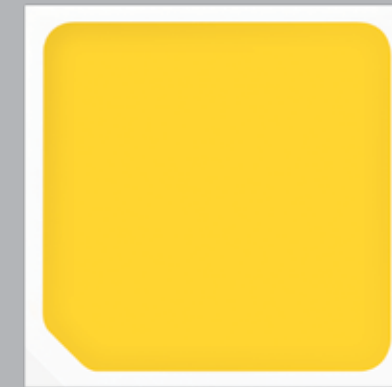
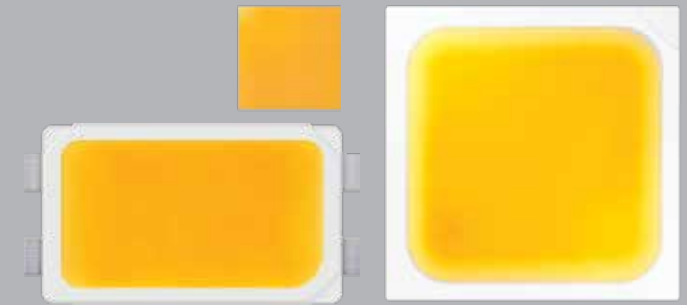


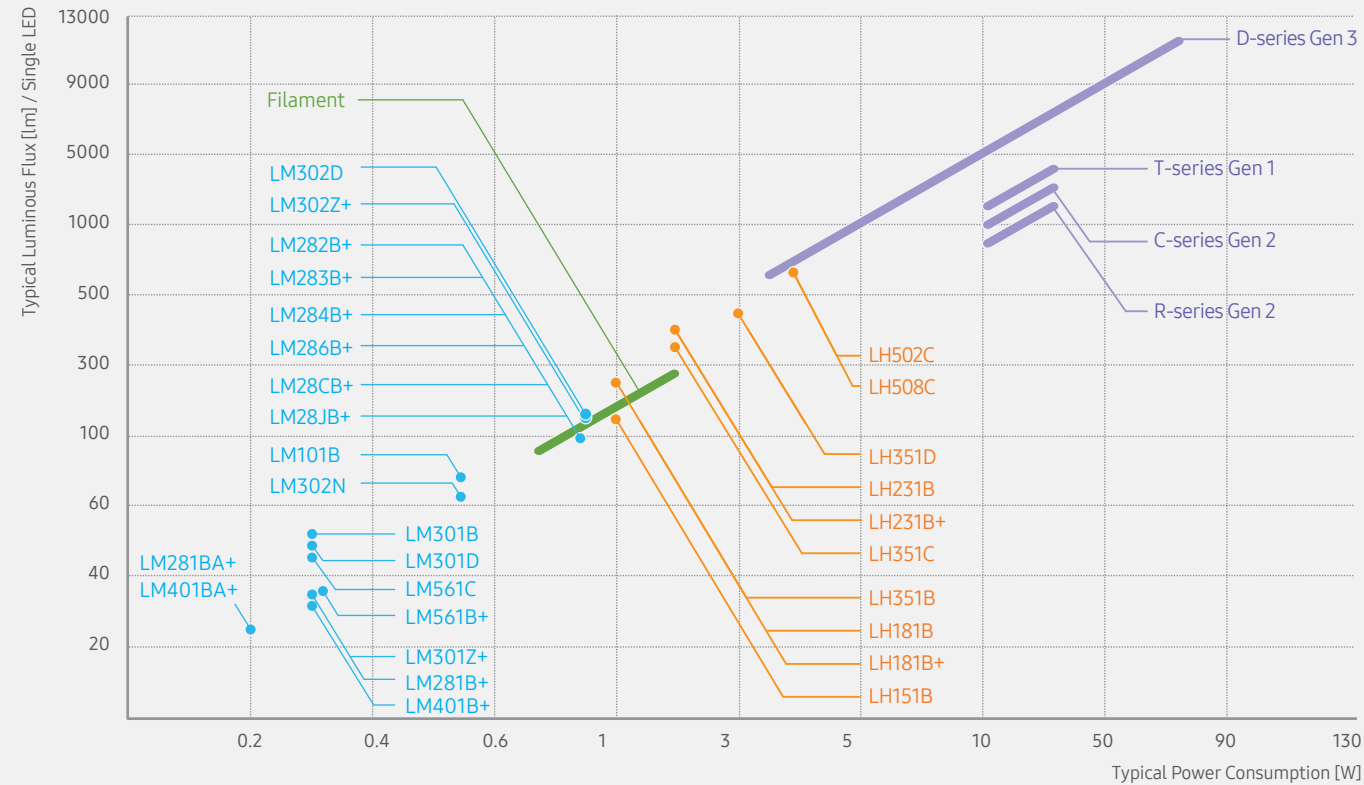
Package



- CSP LEDs
- Mid Power LEDs
- Filament LEDs
- High Power LEDs
- COB LEDs

Samsung LED





Mid Power LEDs

- High efficacy
- Great design flexibility
- Suitable for almost all lights

High Power LEDs

- Ultra high flux
- Provides excellent color consistency
- Street, tunnel and sports lights

Filment LEDs

- Aesthetic appearance
- Large freedom in bulb design
- Decorative and general lighting bulbs

Chip-on-Board LEDs

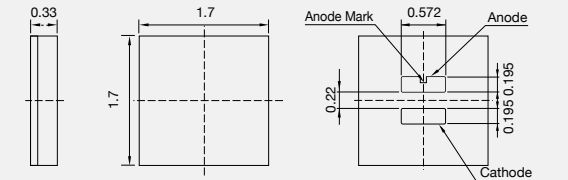
- Chip on Board solution
- Outstanding color rendering & consistency
- MR/PAR, spotlight, high/low bay light

LM101B



Compact form factor for design flexibility

- 0.5W class mid-power 3V LED
- Compact footprint: 1.7mm × 1.7mm



[150mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WT78HEL1W☆S06E	SE	59	63
			SF	63	67
	3000	SCP7VT78HEL1V☆S06E	SG	67	71
			SH	71	75
	3500	SCP7UT78HEL1U☆S06E	SF	63	67
			SG	67	71
	4000	SCP7TT78HEL1T☆S06E	SH	71	75
			SJ	75	70
	5000	SCP7RT78HEL1R☆S06E	SG	67	71
			SH	71	75
	5700	SCP7QT78HEL1Q☆S06E	SF	63	67
			SG	67	71
6500	SCP7PT78HEL1P☆S06E	SH	71	75	
		SF	63	67	
80+	2700	SCP8WT78HEL1W☆S06E	SE	59	63
			SF	63	67
	3000	SCP8VT78HEL1V☆S06E	SG	67	71
			SE	59	63
	3500	SCP8UT78HEL1U☆S06E	SF	63	67
			SG	67	71
	4000	SCP8TT78HEL1T☆S06E	SH	71	75
			SF	63	67
	5000	SCP8RT78HEL1R☆S06E	SG	67	71
			SH	71	75
	5700	SCP8QT78HEL1Q☆S06E	SF	63	67
			SG	67	71
6500	SCP8PT78HEL1P☆S06E	SH	71	75	
		SE	59	63	

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
90+	2700	SCP9WT78HEL1W☆S06E	SB	47	51
			SC	51	55
			SD	55	59
	3000	SCP9VT78HEL1V☆S06E	SB	47	51
			SC	51	55
			SD	55	59
	3500	SCP9UT78HEL1U☆S06E	SB	47	51
			SC	51	55
			SD	55	59
	4000	SCP9TT78HEL1T☆S06E	SC	51	55
			SE	59	63
			SC	51	55
	5000	SCP9RT78HEL1R☆S06E	SD	55	59
			SE	59	63

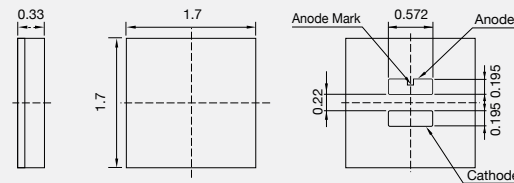
Note: "☆" can be "L" (MacAdam 5-step), "U" (MacAdam 3-step)

LH151B



Compact form factor for design flexibility

- 2W class high power CSP
- Suitable for high/low bay lighting
- Compact footprint: 1.7mm x 1.7mm



[350mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WT93KEL1W◇K36E	K1, M1, N1	130	160
	3000	SCP7VT93KEL1V◇M36E	M1, N1, P1	140	170
	3500	SCP7UT93KEL1U◇M36E	M1, N1, P1	140	170
	4000	SCP7TT93KEL1T◇N36E	N1, P1, Q1	150	180
	5000	SCP7RT93KEL1R◇N36E	N1, P1, Q1	150	180
	5700	SCP7QT93KEL1Q◇M36E	M1, N1, P1	140	170
80+	6500	SCP7PT93KEL1P◇M36E	M1, N1, P1	140	170
	2700	SCP8WT93KEL1W◇J36E	J1, K1, M1	120	150
	3000	SCP8VT93KEL1V◇J36E	J1, K1, M1	120	150
	3500	SCP8UT93KEL1U◇K36E	K1, M1, N1	130	160
	4000	SCP8TT93KEL1T◇K36E	K1, M1, N1	130	160
	5000	SCP8RT93KEL1R◇M36E	M1, N1, P1	140	170
90+	5700	SCP8QT93KEL1Q◇M36E	M1, N1, P1	140	170
	6500	SCP8PT93KEL1P◇K36E	K1, M1, N1	130	160
	2700	SCP9WT93KEL1W◇F36E	F1, G1, H1	90	120
	3000	SCP9VT93KEL1V◇F36E	F1, G1, H1	90	120
	3500	SCP9UT93KEL1U◇G36E	G1, H1, J1	100	130
	4000	SCP9TT93KEL1T◇G36E	G1, H1, J1	100	130
5000	SCP9RT93KEL1R◇G36E	G1, H1, J1	100	130	

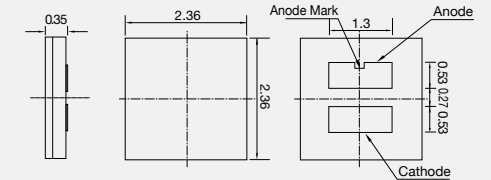
* "◇" can be "L" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LH181B



Compact form factor for design flexibility

- 3W class high power CSP
- Higher performance by applying new structure
- Compact footprint: 2.36mm x 2.36mm



[350mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTF1HEL1W◇M34E	M1, N1, P1	140	170
	3000	SCP7VTF1HEL1V◇N34E	N1, P1, Q1	150	180
	3500	SCP7UTF1HEL1U◇N34E	N1, P1, Q1	150	180
	4000	SCP7TTF1HEL1T◇P34E	P1, Q1, R1	160	190
	5000	SCP7RTF1HEL1R◇P34E	P1, Q1, R1	160	190
	5700	SCP7QTF1HEL1Q◇P34E	P1, Q1, R1	160	190
80+	6500	SCP7PTF1HEL1P◇N34E	N1, P1, Q1	150	180
	2200	SCP8YTF1HEL1Y◇H34E	H1, J1, K1	110	140
	2700	SCP8WTF1HEL1W◇K34E	K1, M1, N1	130	160
	3000	SCP8VTF1HEL1V◇K34E	K1, M1, N1	130	160
	3500	SCP8UTF1HEL1U◇M34E	M1, N1, P1	140	170
	4000	SCP8TTF1HEL1T◇M34E	M1, N1, P1	140	170
90+	5000	SCP8RTF1HEL1R◇N34E	N1, P1, Q1	150	180
	5700	SCP8QTF1HEL1Q◇N34E	N1, P1, Q1	150	180
	6500	SCP8PTF1HEL1P◇M34E	M1, N1, P1	140	170
	2700	SCP9WTF1HEL1W◇G34E	G1, H1, J1	100	130
	3000	SCP9VTF1HEL1V◇G34E	G1, H1, J1	100	130
	3500	SCP9UTF1HEL1U◇H34E	H1, J1, K1	110	140
4000	SCP9TTF1HEL1T◇H34E	H1, J1, K1	110	140	
5000	SCP9RTF1HEL1R◇H34E	H1, J1, K1	110	140	

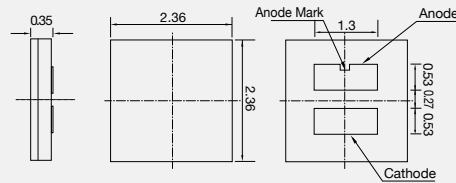
* "◇" can be "K" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LH181B Plus



Compact form factor for design flexibility

- 3W class high power CSP
- Improved lifetime
- Higher performance by applying new structure
- Compact footprint: 2.36mm x 2.36mm



[350mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTF1HELAW◇M34E	M1, N1, P1	140	170
	3000	SCP7VTF1HELAV◇N34E	N1, P1, Q1	150	180
	3500	SCP7UTF1HELAU◇N34E	N1, P1, Q1	150	180
	4000	SCP7TTF1HELAT◇P34E	P1, Q1, R1	160	190
	5000	SCP7RTF1HELAR◇P34E	P1, Q1, R1	160	190
	5700	SCP7QTF1HELAQ◇P34E	P1, Q1, R1	160	190
	6500	SCP7PTF1HELAP◇N34E	N1, P1, Q1	150	180
	2200	SCP8YTF1HELAY◇H34E	H1, J1, K1	110	140
80+	2700	SCP8WTF1HELAW◇K34E	K1, M1, N1	130	160
	3000	SCP8VTF1HELAV◇K34E	K1, M1, N1	130	160
	3500	SCP8UTF1HELAU◇M34E	M1, N1, P1	140	170
	4000	SCP8TTF1HELAT◇M34E	M1, N1, P1	140	170
	5000	SCP8RTF1HELAR◇N34E	N1, P1, Q1	150	180
	5700	SCP8QTF1HELAQ◇N34E	N1, P1, Q1	150	180
	6500	SCP8PTF1HELAP◇M34E	M1, N1, P1	140	170
	2700	SCP9WTF1HELAW◇G34E	G1, H1, J1	100	130
90+	3000	SCP9VTF1HELAV◇G34E	G1, H1, J1	100	130
	3500	SCP9UTF1HELAU◇H34E	H1, J1, K1	110	140
	4000	SCP9TTF1HELAT◇H34E	H1, J1, K1	110	140
	5000	SCP9RTF1HELAR◇H34E	H1, J1, K1	110	140

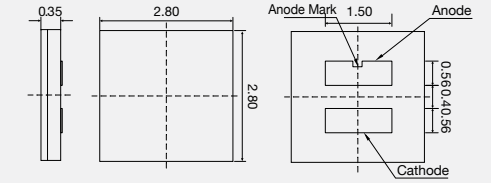
* "◇" can be "K" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LH231B



Compact form factor for design flexibility

- 5W class super high power CSP
- Suitable for highbay lighting, stadium lighting
- Compact footprint: 2.8mm x 2.8mm



[700mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTJ5HEL1W☆MF6E	MB, NB, PB	250	310
	3000	SCP7VTJ5HEL1V☆NF6E	NB, PB, QB	270	330
	3500	SCP7UTJ5HEL1U☆PF6E	PB, QB, RB	290	350
	4000	SCP7TTJ5HEL1T☆QF6E	QB, RB, SB	310	370
	5000	SCP7RTJ5HEL1R☆QF6E	QB, RB, SB	310	370
	5700	SCP7QTJ5HEL1Q☆QF6E	QB, RB, SB	310	370
	6500	SCP7PTJ5HEL1P☆PF6E	PB, QB, RB	290	350
	2700	SCP8WTJ5HEL1W☆MF6E	MB, NB, PB	250	310
80+	3000	SCP8VTJ5HEL1V☆MF6E	MB, NB, PB	250	310
	3500	SCP8UTJ5HEL1U☆NF6E	NB, PB, QB	270	330
	4000	SCP8TTJ5HEL1T☆NF6E	NB, PB, QB	270	330
	5000	SCP8RTJ5HEL1R☆PF6E	PB, QB, RB	290	350
	5700	SCP8QTJ5HEL1Q☆NF6E	NB, PB, QB	270	330
	6500	SCP8PTJ5HEL1P☆NF6E	NB, PB, QB	270	330
	2700	SCP9WTJ5HEL1W☆HF6E	HB, JB, KB	190	250
	3000	SCP9VTJ5HEL1V☆HF6E	HB, JB, KB	190	250
90+	3500	SCP9UTJ5HEL1U☆JF6E	JB, KB, MB	210	270
	4000	SCP9TTJ5HEL1T☆JF6E	JB, KB, MB	210	270

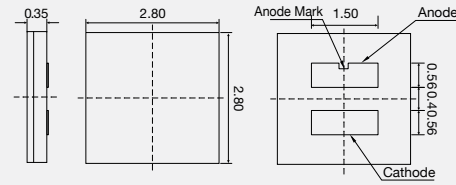
* "☆" can be "L" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LH231B Plus



Compact form factor for design flexibility

- 5W class super high power CSP
- Improved lifetime
- Suitable for highbay lighting, stadium lighting
- Compact footprint: 2.8mm x 2.8mm



[700mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTJ5HELAW☆MF6E	MB, NB, PB	250	310
	3000	SCP7VTJ5HELAV☆NF6E	NB, PB, QB	270	330
	3500	SCP7UTJ5HELAU☆PF6E	PB, QB, RB	290	350
	4000	SCP7TTJ5HELAT☆QF6E	QB, RB, SB	310	370
	5000	SCP7RTJ5HELAR☆QF6E	QB, RB, SB	310	370
	5700	SCP7QTJ5HELAQ☆QF6E	QB, RB, SB	310	370
	6500	SCP7PTJ5HELAP☆PF6E	PB, QB, RB	290	350
80+	2700	SCP8WTJ5HELAW☆MF6E	MB, NB, PB	250	310
	3000	SCP8VTJ5HELAV☆MF6E	MB, NB, PB	250	310
	3500	SCP8UTJ5HELAU☆NF6E	NB, PB, QB	270	330
	4000	SCP8TTJ5HELAT☆NF6E	NB, PB, QB	270	330
	5000	SCP8RTJ5HELAR☆PF6E	PB, QB, RB	290	350
	5700	SCP8QTJ5HELAQ☆NF6E	NB, PB, QB	270	330
	6500	SCP8PTJ5HELAP☆NF6E	NB, PB, QB	270	330
90+	2700	SCP9WTJ5HELAW☆HF6E	HB, JB, KB	190	250
	3000	SCP9VTJ5HELAV☆HF6E	HB, JB, KB	190	250
	3500	SCP9UTJ5HELAU☆JF6E	JB, KB, MB	210	270
	4000	SCP9TTJ5HELAT☆JF6E	JB, KB, MB	210	270

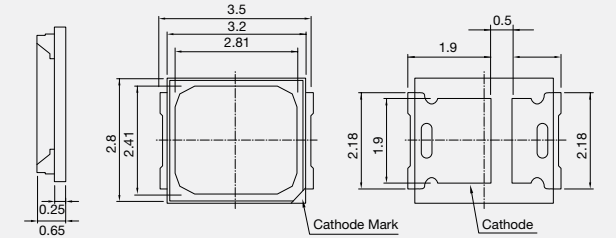
* ☆ can be "L" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LM281BA Plus



Designed for better lm/\$

- 0.2W class mid power 3V LED
- Suitable for ambient lights, downlights & lamps
- Standard footprint: 2.8mm x 3.5mm



[60mA, 25°C]

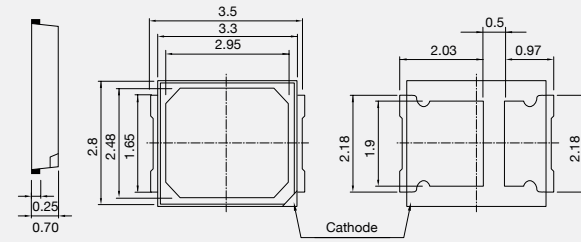
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH22286D5WAW0S2	S2	23	25
		SPMWH22286D5WAW0S3	S3	25.5	27.5
	3000	SPMWH22286D5WAV0S2	S2	23.5	25.5
		SPMWH22286D5WAV0S3	S3	26.5	28.5
	3500	SPMWH22286D5WAW0S2	S2	24	26
		SPMWH22286D5WAW0S3	S3	27	29
	4000	SPMWH22286D5WAT0S2	S2	25	27
		SPMWH22286D5WAT0S3	S3	28	30
	5000	SPMWH22286D5WAR0S2	S2	25.5	27.5
		SPMWH22286D5WAR0S3	S3	28.5	30.5
	5700	SPMWH22286D5WAQ0S2	S2	25.5	27.5
		SPMWH22286D5WAQ0S3	S3	28	30
	6500	SPMWH22286D5WAP0S2	S2	25	27
		SPMWH22286D5WAP0S3	S3	28	30
90+	2700	SPMWH22286D7WAW0S2	S2	19	20.5
		SPMWH22286D7WAW0S3	S3	21.5	23
	3000	SPMWH22286D7WAV0S2	S2	19.5	21
		SPMWH22286D7WAV0S3	S3	22.5	24
	3500	SPMWH22286D7WAW0S2	S2	20	21.5
		SPMWH22286D7WAW0S3	S3	23	24.5
	4000	SPMWH22286D7WAT0S2	S2	21	22.5
		SPMWH22286D7WAT0S3	S3	24	25.5
	5000	SPMWH22286D7WAR0S2	S2	21.5	23
		SPMWH22286D7WAR0S3	S3	24.5	26
	5700	SPMWH22286D7WAQ0S2	S2	21.5	23
		SPMWH22286D7WAQ0S3	S3	24	25.5
	6500	SPMWH22286D7WAP0S2	S2	21	22.5
		SPMWH22286D7WAP0S3	S3	24	25.5

LM281B Plus Pro



Designed for better lm/\$

- 0.5W class mid power LED
- Suitable for ambient lights, downlights & lamps
- Standard footprint: 2.8mm x 3.5mm



[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH1228MD5WAW0VK	VK	32.5	34.5
	3000	SPMWH1228MD5WAV0VK	VK	33.5	35.5
	3500	SPMWH1228MD5WAV0VK	VK	34	36
	4000	SPMWH1228MD5WAT0VK	VK	35	37
	5000	SPMWH1228MD5WAR0VK	VK	35.5	37.5
	5700	SPMWH1228MD5WAQ0VK	VK	35	37
	6500	SPMWH1228MD5WAP0VK	VK	35	37
90+	2700	SPMWH1228MD7WAW0VK	VK	27.5	29.5
	3000	SPMWH1228MD7WAV0VK	VK	28.5	30.5
	3500	SPMWH1228MD7WAV0VK	VK	29.5	31.5
	4000	SPMWH1228MD7WAT0VK	VK	30.5	32.5
	5000	SPMWH1228MD7WAR0VK	VK	32	34
	5700	SPMWH1228MD7WAQ0VK	VK	31	33
	6500	SPMWH1228MD7WAP0VK	VK	30.5	32.5

[150mA, 25°C]

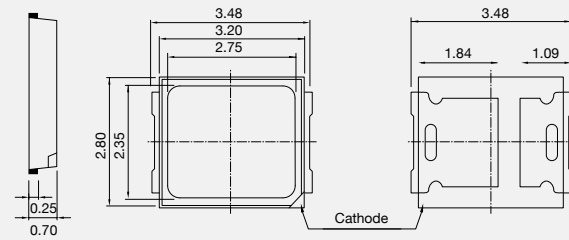
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH1228FD5WAW0VG	VG	66.5	70.5
		SPMWH1228FD5WAW0VJ	VJ	70.5	74.5
	3000	SPMWH1228FD5WAV0VG	VG	68.5	72.5
		SPMWH1228FD5WAV0VJ	VJ	72.5	76.5
	3500	SPMWH1228FD5WAV0VG	VG	69.5	73.5
		SPMWH1228FD5WAV0VJ	VJ	73.5	77.5
	4000	SPMWH1228FD5WAT0VG	VG	72	76
		SPMWH1228FD5WAT0VJ	VJ	76	80
	5000	SPMWH1228FD5WAR0VG	VG	73	77
		SPMWH1228FD5WAR0VJ	VJ	77	81
	5700	SPMWH1228FD5WAQ0VG	VG	72.5	76.5
		SPMWH1228FD5WAQ0VJ	VJ	76.5	80.5
	6500	SPMWH1228FD5WAP0VG	VG	72	76
		SPMWH1228FD5WAP0VJ	VJ	76	80
90+	2700	SPMWH1228FD7WAW0VG	VG	56.5	60.5
		SPMWH1228FD7WAW0VJ	VJ	59.5	63.5
	3000	SPMWH1228FD7WAV0VG	VG	58	62
		SPMWH1228FD7WAV0VJ	VJ	61	65
	3500	SPMWH1228FD7WAV0VG	VG	59	63
		SPMWH1228FD7WAV0VJ	VJ	62	66
	4000	SPMWH1228FD7WAT0VG	VG	61	65
		SPMWH1228FD7WAT0VJ	VJ	64	68
	5000	SPMWH1228FD7WAR0VG	VG	62	66
		SPMWH1228FD7WAR0VJ	VJ	65	69
	5700	SPMWH1228FD7WAQ0VG	VG	61.5	65.5
		SPMWH1228FD7WAQ0VJ	VJ	64.5	68.5
	6500	SPMWH1228FD7WAP0VG	VG	61	65
		SPMWH1228FD7WAP0VJ	VJ	64	68

LM281B Plus



Designed for better lm/\$

- 0.5W class mid power LED
- Suitable for ambient lights, downlights & lamps
- Standard footprint: 2.8mm x 3.5mm



[150mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH1228FD5WAW0SA	SA	54.5	58.5
		SPMWH1228FD5WAW0SC	SC	58.5	62.5
		SPMWH1228FD5WAW0SE	SE	62.5	66.5
		SPMWH1228FD5WAW0RG	RG	66.5	70.5
		SPMWH1228FD5WAW0RJ	RJ	70.5	74.5
		SPMWH1228FD5WAV0SA	SA	56.5	60.5
	3000	SPMWH1228FD5WAV0SC	SC	60.5	64.5
		SPMWH1228FD5WAV0SE	SE	64.5	68.5
		SPMWH1228FD5WAV0RG	RG	68.5	72.5
		SPMWH1228FD5WAV0RJ	RJ	72.5	76.5
		SPMWH1228FD5WAW0SA	SA	57.5	61.5
		SPMWH1228FD5WAW0SC	SC	61.5	65.5
	3500	SPMWH1228FD5WAW0SE	SE	65.5	69.5
		SPMWH1228FD5WAW0RG	RG	69.5	73.5
		SPMWH1228FD5WAW0RJ	RJ	73.5	77.5
		SPMWH1228FD5WAT0SA	SA	60	64
		SPMWH1228FD5WAT0SC	SC	64	68
		SPMWH1228FD5WAT0SE	SE	68	72
	4000	SPMWH1228FD5WAT0RG	RG	72	76
		SPMWH1228FD5WAT0RJ	RJ	76	80
		SPMWH1228FD5WAR0SA	SA	61	65
		SPMWH1228FD5WAR0SC	SC	65	69
		SPMWH1228FD5WAR0SE	SE	69	73
		SPMWH1228FD5WAR0RG	RG	73	77
	5000	SPMWH1228FD5WAR0RJ	RJ	77	81
		SPMWH1228FD5WAQ0SA	SA	60.5	64.5
		SPMWH1228FD5WAQ0SC	SC	64.5	68.5
		SPMWH1228FD5WAQ0SE	SE	68.5	72.5
		SPMWH1228FD5WAQ0RG	RG	72.5	76.5
		SPMWH1228FD5WAQ0RJ	RJ	76.5	80.5
6500	SPMWH1228FD5WAP0SA	SA	60	64	
	SPMWH1228FD5WAP0SC	SC	64	68	
	SPMWH1228FD5WAP0SE	SE	68	72	
	SPMWH1228FD5WAP0RG	RG	72	76	
	SPMWH1228FD5WAP0RJ	RJ	76	80	

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
90+	2700	SPMWH1228FD7WAW0SA	SA	44.5	48.5
		SPMWH1228FD7WAW0SC	SC	48.5	52.5
		SPMWH1228FD7WAW0SE	SE	52.5	56.5
		SPMWH1228FD7WAW0RG	RG	56.5	60.5
		SPMWH1228FD7WAW0RJ	RJ	59.5	63.5
		SPMWH1228FD7WAV0SA	SA	46	50
	3000	SPMWH1228FD7WAV0SC	SC	50	54
		SPMWH1228FD7WAV0SE	SE	54	58
		SPMWH1228FD7WAV0RG	RG	58	62
		SPMWH1228FD7WAV0RJ	RJ	61	65
		SPMWH1228FD7WAW0SA	SA	47	51
		SPMWH1228FD7WAW0SC	SC	51	55
	3500	SPMWH1228FD7WAW0SE	SE	55	59
		SPMWH1228FD7WAW0RG	RG	59	63
		SPMWH1228FD7WAW0RJ	RJ	62	66
		SPMWH1228FD7WAT0SA	SA	49	53
		SPMWH1228FD7WAT0SC	SC	53	57
		SPMWH1228FD7WAT0SE	SE	57	61
	4000	SPMWH1228FD7WAT0RG	RG	61	65
		SPMWH1228FD7WAT0RJ	RJ	64	68
		SPMWH1228FD7WAR0SA	SA	50	54
		SPMWH1228FD7WAR0SC	SC	54	58
		SPMWH1228FD7WAR0SE	SE	58	62
		SPMWH1228FD7WAR0RG	RG	62	66
	5000	SPMWH1228FD7WAR0RJ	RJ	65	69
		SPMWH1228FD7WAQ0SA	SA	49.5	53.5
		SPMWH1228FD7WAQ0SC	SC	53.5	57.5
		SPMWH1228FD7WAQ0SE	SE	57.5	61.5
		SPMWH1228FD7WAQ0RG	RG	61.5	65.5
		SPMWH1228FD7WAQ0RJ	RJ	64.5	68.5
6500	SPMWH1228FD7WAP0SA	SA	49	53	
	SPMWH1228FD7WAP0SC	SC	53	57	
	SPMWH1228FD7WAP0SE	SE	57	61	
	SPMWH1228FD7WAP0RG	RG	61	65	
	SPMWH1228FD7WAP0RJ	RJ	64	68	

[65mA, 25°C]

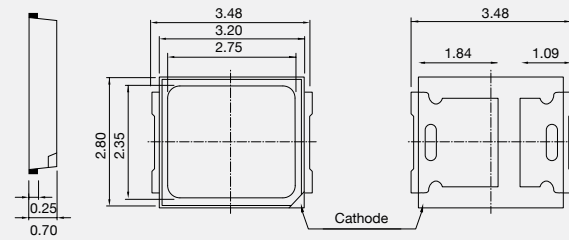
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH1228MD5WAW0RK	RK	32.5	34.5
	3000	SPMWH1228MD5WAV0RK	RK	33.5	35.5
	3500	SPMWH1228MD5WAW0RK	RK	34	36
	4000	SPMWH1228MD5WAT0RK	RK	35	37
	5000	SPMWH1228MD5WAR0RK	RK	35.5	37.5
	5700	SPMWH1228MD5WAQ0RK	RK	35	37
	6500	SPMWH1228MD5WAP0RK	RK	35	37

LM282B Plus



Designed for better lm/\$

- 1W class mid power 6V LED
- Suitable for downlights, ambient lights & lamps
- Standard footprint: 2.8mm x 3.5mm



[150mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
80+	2700	SPMWH1221FQ5GBW0SA	SA	111	121	
		SPMWH1221FQ5GBW0SB	SB	121	131	
	3000	SPMWH1221FQ5GBV0SA	SA	115	125	
		SPMWH1221FQ5GBV0SB	SB	125	135	
	3500	SPMWH1221FQ5GBU0SA	SA	117	127	
		SPMWH1221FQ5GBU0SB	SB	127	137	
	4000	SPMWH1221FQ5GBT0SA	SA	121	131	
		SPMWH1221FQ5GBT0SB	SB	131	141	
	5000	SPMWH1221FQ5GBR0SA	SA	123	133	
		SPMWH1221FQ5GBR0SB	SB	133	143	
	5700	SPMWH1221FQ5GBQ0SA	SA	122	132	
		SPMWH1221FQ5GBQ0SB	SB	132	142	
	6500	SPMWH1221FQ5GBP0SA	SA	121	131	
		SPMWH1221FQ5GBP0SB	SB	131	141	
	90+	2700	SPMWH1221FQ7GBW0SA	SA	93	103
			SPMWH1221FQ7GBW0SB	SB	103	113
3000		SPMWH1221FQ7GBV0SA	SA	97	107	
		SPMWH1221FQ7GBV0SB	SB	107	117	
3500		SPMWH1221FQ7GBU0SA	SA	98	108	
		SPMWH1221FQ7GBU0SB	SB	108	118	
4000		SPMWH1221FQ7GBT0SA	SA	102	112	
		SPMWH1221FQ7GBT0SB	SB	112	122	
5000		SPMWH1221FQ7GBR0SA	SA	103	113	
		SPMWH1221FQ7GBR0SB	SB	113	123	
5700		SPMWH1221FQ7GBQ0SA	SA	102	112	
		SPMWH1221FQ7GBQ0SB	SB	112	122	
6500		SPMWH1221FQ7GBP0SA	SA	102	112	
		SPMWH1221FQ7GBP0SB	SB	112	122	

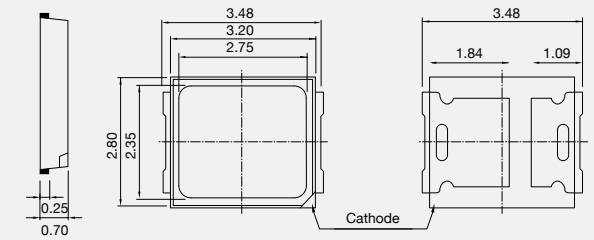
* Color coordinates: Considering the color shift during high temp. operation, provided at hot temp. color shift coordinates.

LM283B Plus



Designed for better lm/\$

- 1W class mid power 9V LED
- Suitable for lamps & downlights
- Standard footprint: 2.8mm x 3.5mm



[100mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
80+	2700	SPMWH1229AQ5SGW0SL	SL	112	122	
		SPMWH1229AQ5SGW0SM	SM	122	132	
	3000	SPMWH1229AQ5SGV0SL	SL	113	123	
		SPMWH1229AQ5SGV0SM	SM	123	133	
	3500	SPMWH1229AQ5SGU0SL	SL	117	127	
		SPMWH1229AQ5SGU0SM	SM	127	137	
	4000	SPMWH1229AQ5SGT0SL	SL	122	132	
		SPMWH1229AQ5SGT0SM	SM	132	142	
	5000	SPMWH1229AQ5SGR0SL	SL	124	134	
		SPMWH1229AQ5SGR0SM	SM	132	142	
	5700	SPMWH1229AQ5SGQ0SL	SL	123	133	
		SPMWH1229AQ5SGQ0SM	SM	132	142	
	6500	SPMWH1229AQ5SGP0SL	SL	122	132	
		SPMWH1229AQ5SGP0SM	SM	132	142	
	90+	2700	SPMWH1229AQ7SGW0SL	SL	93	103
			SPMWH1229AQ7SGW0SM	SM	103	113
3000		SPMWH1229AQ7SGV0SL	SL	94	104	
		SPMWH1229AQ7SGV0SM	SM	104	114	
3500		SPMWH1229AQ7SGU0SL	SL	98	108	
		SPMWH1229AQ7SGU0SM	SM	108	118	
4000		SPMWH1229AQ7SGT0SL	SL	102	112	
		SPMWH1229AQ7SGT0SM	SM	114	124	
5000		SPMWH1229AQ7SGR0SL	SL	104	114	
		SPMWH1229AQ7SGR0SM	SM	114	124	
5700		SPMWH1229AQ7SGQ0SL	SL	103	113	
		SPMWH1229AQ7SGQ0SM	SM	114	124	
6500		SPMWH1229AQ7SGP0SL	SL	102	112	
		SPMWH1229AQ7SGP0SM	SM	114	124	

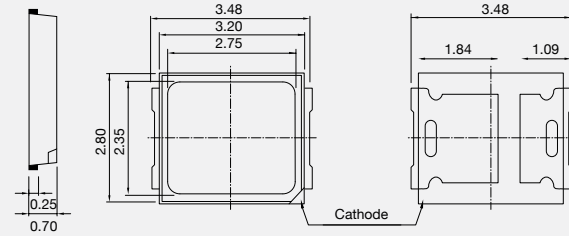
* Color coordinates: Considering the color shift during high temp. operation, provided at hot temp. color shift coordinates.

LM284B Plus



Designed for better lm/\$

- 1W class mid power 12V LED
- Suitable for lamps & downlights
- Standard footprint: 2.8mm x 3.5mm



[75mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH122C7Q5SHW0SB	SB	108	118
	3000	SPMWH122C7Q5SHV0SB	SB	110	120
	3500	SPMWH122C7Q5SHU0SB	SB	113	123
	4000	SPMWH122C7Q5SHT0SB	SB	115	125
	5000	SPMWH122C7Q5SHR0SB	SB	120	130
	5700	SPMWH122C7Q5SHQ0SB	SB	118	128
	6500	SPMWH122C7Q5SHP0SB	SB	115	125

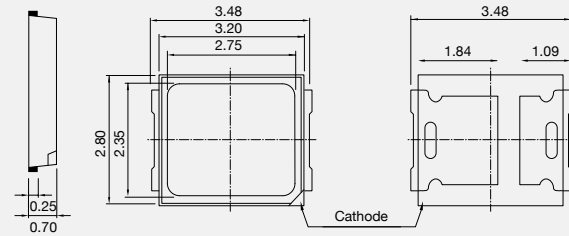
* Color coordinates: Considering the color shift during high temp. operation, provided at hot temp. color shift coordinates.

LM286B Plus



Designed for better lm/\$

- 1W class mid power 18V LED
- Suitable for lamps & downlights
- Standard footprint: 2.8mm x 3.5mm



[50mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH12245Q5W8W0SA	SA	100	110
		SPMWH12245Q5W8W0SB	SB	126	136
	3000	SPMWH12245Q5W8V0SA	SA	103	113
		SPMWH12245Q5W8V0SB	SB	128	138
	3500	SPMWH12245Q5W8U0SA	SA	107	117
		SPMWH12245Q5W8U0SB	SB	132	142
	4000	SPMWH12245Q5W8T0SA	SA	111	121
		SPMWH12245Q5W8T0SB	SB	138	148
	5000	SPMWH12245Q5W8R0SA	SA	114	124
		SPMWH12245Q5W8R0SB	SB	139	149
	5700	SPMWH12245Q5W8Q0SA	SA	112	122
		SPMWH12245Q5W8Q0SB	SB	137	147
	6500	SPMWH12245Q5W8Q0SA	SA	111	121
		SPMWH12245Q5W8Q0SB	SB	135	145
90+	2700	SPMWH12245Q7W8W0SA	SA	85	95
		SPMWH12245Q7W8W0SB	SB	105	115
	3000	SPMWH12245Q7W8V0SA	SA	88	98
		SPMWH12245Q7W8V0SB	SB	108	118
	3500	SPMWH12245Q7W8U0SA	SA	91	101
		SPMWH12245Q7W8U0SB	SB	110	120
	4000	SPMWH12245Q7W8T0SA	SA	95	105
		SPMWH12245Q7W8T0SB	SB	112	122
	5000	SPMWH12245Q7W8R0SA	SA	97	107
		SPMWH12245Q7W8R0SB	SB	114	124
	5700	SPMWH12245Q7W8Q0SA	SA	96	106
		SPMWH12245Q7W8Q0SB	SB	113	123
	6500	SPMWH12245Q7W8Q0SA	SA	95	105
		SPMWH12245Q7W8P0SB	SB	112	122

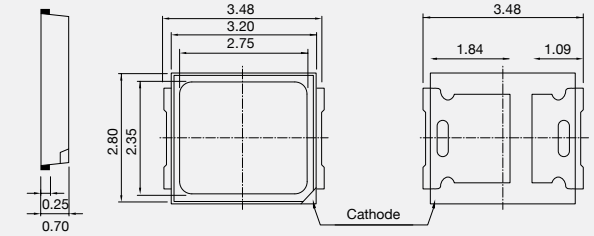
*Color coordinates: Considering the color shift during high temp. operation, provided at hot temp. color shift coordinates.

LM28CB Plus



Designed for better lm/\$

- 1W class mid power 36V LED
- Suitable for lamps
- Standard footprint: 2.8mm x 3.5mm



[30mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH12253Q5SGW0SA	SA	125	135
	3000	SPMWH12253Q5SGV0SA	SA	128	138
	3500	SPMWH12253Q5SGU0SA	SA	132	142
	4000	SPMWH12253Q5SGT0SA	SA	136	146
	5000	SPMWH12253Q5SGR0SA	SA	139	149
	5700	SPMWH12253Q5SGQ0SA	SA	137	147
	6500	SPMWH12253Q5SGP0SA	SA	136	146

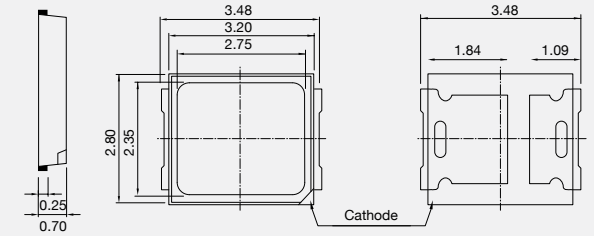
* Color coordinates: Considering the color shift during high temp. operation, provided at hot temp. color shift coordinates.

LM28JB Plus



Designed for better lm/\$

- 1W class mid power 54V LED
- Suitable for lamps
- Standard footprint: 2.8mm x 3.5mm



[20mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH12262Q5SGW0SA	SA	125	135
	3000	SPMWH12262Q5SGV0SA	SA	128	138
	3500	SPMWH12262Q5SGU0SA	SA	132	142
	4000	SPMWH12262Q5SGT0SA	SA	136	146
	5000	SPMWH12262Q5SGR0SA	SA	139	149
	5700	SPMWH12262Q5SGQ0SA	SA	137	147
	6500	SPMWH12262Q5SGP0SA	SA	136	146

* Color coordinates: Considering the color shift during high temp. operation, provided at hot temp. color shift coordinates.

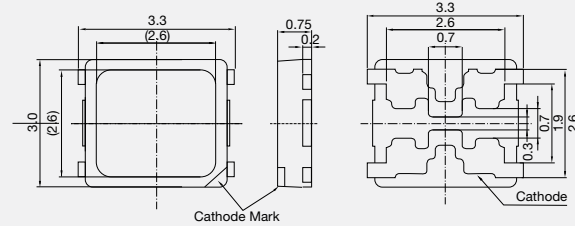


LM301B



High performance, highest lm/W for fluorescent lamp replacement

- 0.2W, 3V mid-power LED
- Standard footprint: 3.0mm x 3.0mm

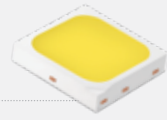


[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWH32AMD3XAV0S0	SJ	34	36
			SK	36	38
			SL	38	40
	3500	SPMWH32AMD3XAU0S0	SJ	34	36
			SK	36	38
			SL	38	40
	4000	SPMWH32AMD3XAT0S0	SK	36	38
			SL	38	40
			SM	40	42
	5000	SPMWH32AMD3XAR0S0	SK	36	38
			SL	38	40
			SM	40	42
80+	2700	SPMWH32AMD5XAW0S0	SH	32	34
			SJ	34	36
	3000	SPMWH32AMD5XAV0S0	SK	36	38
			SL	38	40
			SM	40	42
			SH	32	34
	3500	SPMWH32AMD5XAU0S0	SJ	34	36
			SK	36	38
	4000	SPMWH32AMD5XAT0S0	SL	38	40
			SM	40	42
			SK	36	38
			SL	38	40
SM			40	42	
SH			32	34	
5000	SPMWH32AMD5XAR0S0	SL	38	40	
		SM	40	42	
		SK	36	38	
		SL	38	40	
		SM	40	42	
		SH	32	34	
5700	SPMWH32AMD5XAQ0S0	SL	38	40	
		SM	40	42	
		SK	36	38	
6500	SPMWH32AMD5XAP0S0	SL	38	40	
		SM	40	42	
		SL	38	40	

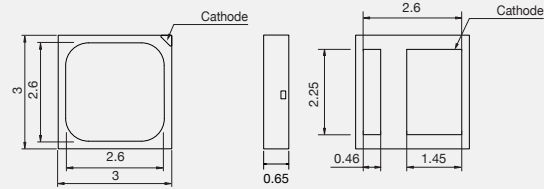
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
90+	2700	SPMWH32AMD7XAW0S0	SF	28	30
			SG	30	32
	3000	SPMWH32AMD7XAV0S0	SF	28	30
			SG	30	32
	3500	SPMWH32AMD7XAU0S0	SG	30	32
			SH	32	34
	4000	SPMWH32AMD7XAT0S0	SG	30	32
			SH	32	34
	5000	SPMWH32AMD7XAR0S0	SG	30	32
			SH	32	34
	5700	SPMWH32AMD7XAQ0S0	SG	30	32
			SH	32	34
6500	SPMWH32AMD7XAP0S0	SG	30	32	
		SH	32	34	

LM301D



Balanced lm/\$ for ambient

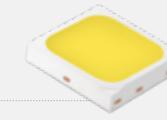
- 0.2W, 3V mid power LED
- EMC resin for high reliability
- Standard footprint: 3.0mm x 3.0mm



[65mA, 25°C]

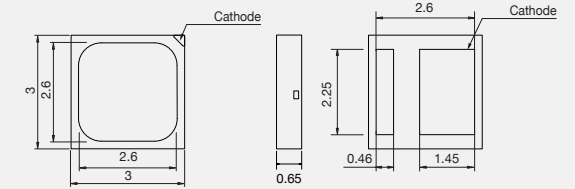
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWH3326MS3WAV0SD	SD	34.5	37
	3500	SPMWH3326MS3WU0SD	SD	35	37.5
	4000	SPMWH3326MS3WAT0SD	SD	36	38.5
	5000	SPMWH3326MS3WAR0SD	SD	37	39.5
80+	2700	SPMWH3326MS5WAW0SD	SD	31.5	34.5
	3000	SPMWH3326MS5WAV0SD	SD	32.5	35.5
	3500	SPMWH3326MS5WU0SD	SD	33.5	36.5
	4000	SPMWH3326MS5WAY0SD	SD	34.5	37.5
	5000	SPMWH3326MS5WAR0SD	SD	35	38
	5700	SPMWH3326MS5WAQ0SD	SD	34.5	37.5
	6500	SPMWH3326MS5WAP0SD	SD	34.5	37.5
90+	2700	SPMWH3326MS7WAW0SD	SD	26.5	29
	3000	SPMWH3326MS7WAV0SD	SD	27.5	30
	3500	SPMWH3326MS7WU0SD	SD	28.5	31
	4000	SPMWH3326MS7WAY0SD	SD	29.5	32
	5000	SPMWH3326MS7WAR0SD	SD	30	32.5
	5700	SPMWH3326MS7WAQ0SD	SD	29	31.5
	6500	SPMWH3326MS7WAP0SD	SD	29	31.5

LM302D



Balanced lm/\$ for ambient

- 0.9W, 6V mid power LED
- EMC resin for high reliability
- Standard footprint: 3.0mm x 3.0mm



[65mA, 25°C]

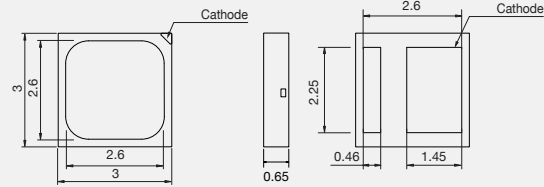
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWH3327FS3GAV0SF	SF	147	157
	3500	SPMWH3327FS3GAU0SF	SF	149	159
	4000	SPMWH3327FS3GAT0SF	SF	153	163
	5000	SPMWH3327FS3GAR0SF	SF	155	165
80+	2700	SPMWH3327FS5GAW0SF	SF	129	139
	3000	SPMWH3327FS5GAV0SF	SF	134	144
	3500	SPMWH3327FS5GAU0SF	SF	139	149
	4000	SPMWH3327FS5GAT0SF	SF	142	152
	5000	SPMWH3327FS5GAR0SF	SF	144	154
	5700	SPMWH3327FS5GAQ0SF	SF	143	153
	6500	SPMWH3327FS5GAP0SF	SF	142	152
90+	2700	SPMWH3327FS7GAW0SF	SF	110	120
	3000	SPMWH3327FS7GAV0SF	SF	114	124
	3500	SPMWH3327FS7GAU0SF	SF	118	128
	4000	SPMWH3327FS7GAT0SF	SF	121	131
	5000	SPMWH3327FS7GAR0SF	SF	123	133
	5700	SPMWH3327FS7GAQ0SF	SF	122	132
	6500	SPMWH3327FS7GAP0SF	SF	121	131

LM301Z Plus



Balanced lm/\$ for highbay

- 0.2W, 3V mid power LED
- EMC resin for high reliability
- Standard footprint: 3.0mm x 3.0mm



[65mA, 25°C]

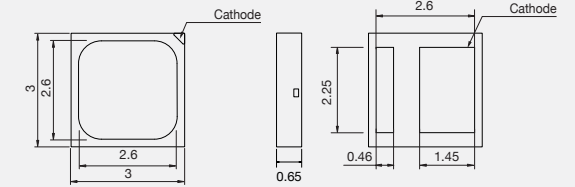
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWH3326MP3WAV0S0	S0	33	36
	3500	SPMWH3326MP3WAU0S0	S0	34	37
	4000	SPMWH3326MP3WAT0S0	S0	35	38
	5000	SPMWH3326MP3WAR0S0	S0	35	38
	5700	SPMWH3326MP3WAQ0S0	S0	35	38
	6500	SPMWH3326MP3WAP0S0	S0	34	37
80+	2700	SPMWH3326MP5WAW0S0	S0	30	33
	3000	SPMWH3326MP5WAV0S0	S0	31	34
	3500	SPMWH3326MP5WAU0S0	S0	32	35
	4000	SPMWH3326MP5WAT0S0	S0	33	36
	5000	SPMWH3326MP5WAR0S0	S0	33	36
	5700	SPMWH3326MP5WAQ0S0	S0	33	36
90+	6500	SPMWH3326MP5WAP0S0	S0	33	36
	2700	SPMWH3326MP7WAW0S0	S0	25	28
	3000	SPMWH3326MP7WAV0S0	S0	26	29
	3500	SPMWH3326MP7WAU0S0	S0	27	30
	4000	SPMWH3326MP7WAT0S0	S0	28	31
	5000	SPMWH3326MP7WAR0S0	S0	28	31
	5700	SPMWH3326MP7WAQ0S0	S0	28	31
	6500	SPMWH3326MP7WAP0S0	S0	28	31

LM302Z Plus



Balanced lm/\$ for highbay

- 0.9W, 6V mid-power LED
- EMC resin for high reliability
- Standard footprint: 3.0mm x 3.0mm



[65mA, 25°C]

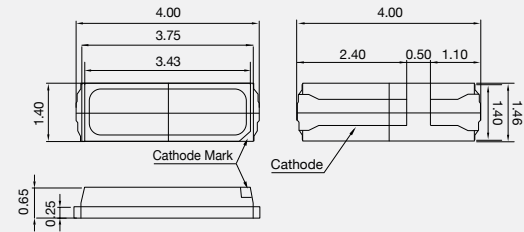
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWH3326FP3GBV0S0	S0	139	149
	3500	SPMWH3326FP3GBU0S0	S0	141	151
	4000	SPMWH3326FP3GBT0S0	S0	144	154
	5000	SPMWH3326FP3GBR0S0	S0	146	156
	5700	SPMWH3326FP3GBQ0S0	S0	144	154
	6500	SPMWH3326FP3GBP0S0	S0	144	154
80+	2700	SPMWH3326FP5GBW0S0	S0	125	135
	3000	SPMWH3326FP5GBV0S0	S0	126	136
	3500	SPMWH3326FP5GBU0S0	S0	134	144
	4000	SPMWH3326FP5GBT0S0	S0	134	144
	5000	SPMWH3326FP5GBR0S0	S0	134	144
	5700	SPMWH3326FP5GBQ0S0	S0	134	144
90+	6500	SPMWH3326FP5GBP0S0	S0	132	142
	2700	SPMWH3326FP7GBW0S0	S0	103	113
	3000	SPMWH3326FP7GBV0S0	S0	107	117
	3500	SPMWH3326FP7GBU0S0	S0	114	124
	4000	SPMWH3326FP7GBT0S0	S0	116	126
	5000	SPMWH3326FP7GBR0S0	S0	116	126
	5700	SPMWH3326FP7GBQ0S0	S0	116	126
	6500	SPMWH3326FP7GBP0S0	S0	116	126

LM401BA Plus



IP guaranteed mid power 0.2W package for slim edge-lit panel applications

- 0.2W class mid power LED
- Suitable for slim edge-lit panel applications
- Standard footprint: 4.0mm x 1.4mm



[60mA, 25°C]

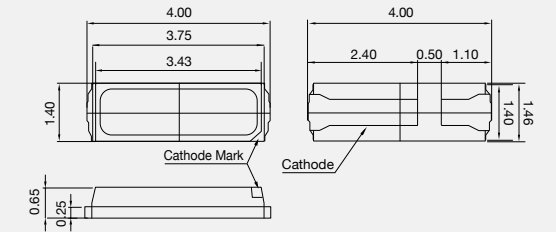
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH14106D5WAW0S*	S1	21	23
			S2	23	25
			S3	25	27
			S4	27	29
			S5	29	31
	3000	SPMWH14106D5WAV0S*	S1	21	23
			S2	23	25
			S3	25	27
			S4	27	29
			S5	29	31
	3500	SPMWH14106D5WAW0S*	S1	22	24
			S2	24	26
			S3	26	28
			S4	28	30
			S5	30	32
	4000	SPMWH14106D5WAT0S*	S1	23	25
			S2	25	27
			S3	27	29
			S4	29	31
			S5	31	33
	5000	SPMWH14106D5WAR0S*	S1	24	26
			S2	26	28
			S3	28	30
			S4	30	32
			S5	31.5	33.5
5700	SPMWH14106D5WAQ0S*	S1	23	25	
		S2	25	27	
		S3	27	29	
		S4	29	31	
		S5	30.5	32.5	
6500	SPMWH14106D5WAP0S*	S1	23	25	
		S2	25	27	
		S3	27	29	
		S4	29	31	
		S5	30.5	32.5	

LM401B Plus



IP guaranteed mid power 0.5W package for slim edge-lit panel applications

- 0.5W class mid power LED
- Suitable for slim edge-lit panel applications
- Standard footprint: 4.0mm x 1.4mm



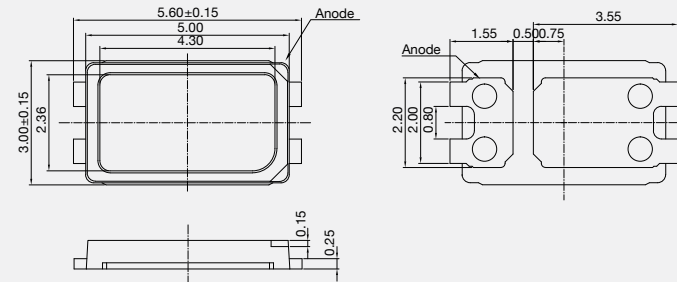
[120mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH1410CD5WAW0S*	S2	40	44
			S3	44	48
			S4	48	52
			S5	52	56
			S2	40	44
	3000	SPMWH1410CD5WAV0S*	S3	44	48
			S4	48	52
			S5	52	56
			S2	40	44
			S3	44	48
	3500	SPMWH1410CD5WAW0S*	S4	48	52
			S5	52	56
			S2	44	48
			S3	48	52
			S5	56	60
	4000	SPMWH1410CD5WAT0S*	S2	44	48
			S3	48	52
			S4	52	56
			S5	56	60
			S2	46	50
	5000	SPMWH1410CD5WAR0S*	S3	50	54
			S4	54	58
			S5	58	62
			S2	45	49
			S3	49	53
5700	SPMWH1410CD5WAQ0S*	S4	53	57	
		S5	57	61	
		S2	44	48	
		S3	48	52	
		S4	52	56	
6500	SPMWH1410CD5WAP0S*	S5	56	60	

LM561B Plus

Balanced lm/\$ for ambient

- 0.3 W class mid power LED
- High efficacy for distributed light
- Standard footprint: 5.6mm x 3.0mm



[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SPMWHT541MP3WAW0S0	S5	32	34
			S6	34	36
			S7	36	38
	3000	SPMWHT541MP3WAV0S0	S5	32.5	34.5
			S6	34.5	36.5
			S7	36.5	38.5
	3500	SPMWHT541MP3WAW0S0	S5	33	35
			S6	35	37
			S7	37	39
	4000	SPMWHT541MP3WAT0S0	S5	34	35.8
			S6	35.8	38
			S7	38	40
5000	SPMWHT541MP3WAR0S0	S4	33	35	
		S5	35	37	
		S6	37	39	
80+	2700	SPMWHT541MP5WAW0S4	S4	30	32
			S5	32	34
			S6	34.5	36.5
	3000	SPMWHT541MP5WAV0S4	S4	30.5	32.5
			S5	32.5	34.5
			S6	34.5	36.5
	3500	SPMWHT541MP5WAW0S4	S4	31	33
			S5	33	35
			S6	35	37
	4000	SPMWHT541MP5WAT0S4	S4	32	34
			S5	34	36
			S6	36	38
	5000	SPMWHT541MP5WAR0S4	S4	33	35
			S5	35	37
			S6	37	39
5700	SPMWHT541MP5WAQ0S4	S4	32.5	34.5	
		S5	34.5	36.5	
		S6	36.5	38.5	
6500	SPMWHT541MP5WAP0S4	S4	32	34	
		S5	34	36	
		S6	36	38	

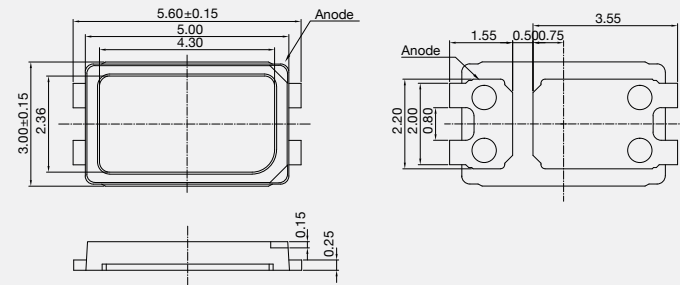
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
90+	2700	SPMWHT541MP7WAW0S0	S1	24	26
			S2	26	28
			S3	28	30
	3000	SPMWHT541MP7WAV0S0	S1	24.5	26.5
			S2	26.5	28.5
			S3	28.5	30.5
	3500	SPMWHT541MP7WAW0S0	S1	25	27
			S2	27	29
			S3	29	31
	4000	SPMWHT541MP7WAT0S0	S1	26	28
			S2	28	30
			S3	30	32
5000	SPMWHT541MP7WAR0S0	S1	27	29	
		S2	29	31	
		S3	31	33	
5700	SPMWHT541MP7WAQ0S0	S1	26.5	28.5	
		S2	28.5	30.5	
		S3	30.5	32.5	
6500	SPMWHT541MP7WAP0S0	S1	26.0	28.0	
		S2	28	30	
		S3	30	32	
90+ Premium Efficacy	2700	SPMWHT541MJ7WAW0S0	SB	26	28
			SC	28	30
			SB	27	29
	3000	SPMWHT541MJ7WAV0S0	SC	29	31
			SB	28	30
			SC	30	32
	3500	SPMWHT541MJ7WAW0S0	SB	28	30
			SC	30	32
			SB	29	31
	4000	SPMWHT541MJ7WAT0S0	SC	31	33
			SB	30	32
			SC	32	34
5000	SPMWHT541MJ7WAR0S0	SB	29	31	
		SC	31	33	
		SB	30	32	
5700	SPMWHT541MJ7WAQ0S0	SC	31	33	
		SB	29	31	
		SC	30	32	
6500	SPMWHT541MJ7WAP0S0	SB	28	30	
		SC	30	32	
		SB	29	31	



LM561C

Balanced lm/\$ for ambient

- 0.3W class mid power LED
- High efficacy for distributed light
- Standard footprint: 5.6mm x 3.0mm



[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWHT541ML3XAV0S0	S5	32.5	34.5
			S6	34.5	36.5
			S7	36.5	38.5
	3500	SPMWHT541ML3XAU0S0	S5	33	35
			S6	35	37
			S7	37	39
	4000	SPMWHT541ML3XAT0S0	S5	34	36
			S6	36	38
			S7	38	40
	5000	SPMWHT541ML3XAR0S0	S5	35	37
			S6	37	39
			S7	39	41
80+	2700	SPMWHT541ML5XAW0S0	S4	30	32
			S5	32	34
	3000	SPMWHT541ML5XAV0S0	S5	32.5	34.5
			S6	34.5	36.5
	3500	SPMWHT541ML5XAU0S0	S5	33	35
			S6	35	37
	4000	SPMWHT541ML5XAT0S0	S5	34	36
			S6	36	38
	5000	SPMWHT541ML5XAR0S0	S5	35	37
			S6	37	39
	5700	SPMWHT541ML5XAQ0S0	S5	34.5	36.5
			S6	36.5	38.5
6500	SPMWHT541ML5XAP0S0	S5	34	36	
		S6	36	38	

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
90+	2700	SPMWHT541ML7XAW0S0	S1	24	26
			S2	26	28
			S3	28	30
	3000	SPMWHT541ML7XAV0S0	S1	24.5	26.5
			S2	26.5	28.5
			S3	28.5	30.5
	3500	SPMWHT541ML7XAU0S0	S1	25	27
			S2	27	29
			S3	29	31
	4000	SPMWHT541ML7XAT0S0	S1	26	28
			S2	28	30
			S3	30	32
5000	SPMWHT541ML7XAR0S0	S1	27	29	
		S2	29	31	
		S3	31	33	
5700	SPMWHT541ML7XAQ0S0	S1	26.5	28.5	
		S2	28.5	30.5	
		S3	30.5	32.5	
6500	SPMWHT541ML7XAP0S0	S1	26	28	
		S2	28	30	
		S3	30	32	
90+ Premium Efficacy	2700	SPMWHT541MK7XAW0S0	SB	28	30
			SC	30	32
	3000	SPMWHT541MK7XAV0S0	SB	28	30
			SC	30	32
	3500	SPMWHT541MK7XAU0S0	SB	29	31
			SC	31	33
	4000	SPMWHT541MK7XAT0S0	SB	30	32
			SC	32	34
	5000	SPMWHT541MK7XAR0S0	SB	31	33
			SC	33	35
	5700	SPMWHT541MK7XAQ0S0	SB	30	32
			SC	32	34
6500	SPMWHT541MK7XAP0S0	SB	30	32	
		SC	32	34	

Linear Filament LEDs



Linear filament LED for decorative and general lighting bulbs

- Customized designs are available per customer request
- Length: 28, 38, 48, 58, 68mm
- Substrate: Ceramic, Sapphire
- CCT: 2200, 2400, 2700, 3000, 4000, 5000K
- CRI: 80+, 90+

LF007A

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
80+	2700	90	106	10	Ceramic	V	SPMWH1FM31D523WTFY
		97	113	10	Sapphire	V	SPMWH1FM31D523WTFY

LF009A

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
80+	2700	132	148	10	Sapphire	V	SPMWH1FM31D545WTKY
						-	SPMWH1FM31D545WTKY

LF010A

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
80+	2700	162	190	15	Sapphire	V	SPMWH1FM3RD524WTR1

LF312B

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
80+	2700	110	120	10	Ceramic	-	SPMWH1FC31D52TWTH1

LF423B

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
80+	2700	220	240	20	Ceramic	-	SPMWH1FC42D52TWTU1

LF622B

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
80+	2700	210	230	10	Ceramic	-	SPMWH1FC61D59RWT2

Flexible Filament LEDs



Flexible filament LED for decorative and general lighting bulbs

- Customized designs are available per customer request
- Length: 80, 148, 248, 308mm
- Substrate: Flexible PCB
- CCT: 2200, 2400, 2700, 3000, 4000, 5000K
- CRI: 80+, 90+

LFA26C

[25°C]

CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
84+	2200	260	290	20	FPC	-	SPMWH1FFA2D59RYTS2

LFB54C

[25°C]

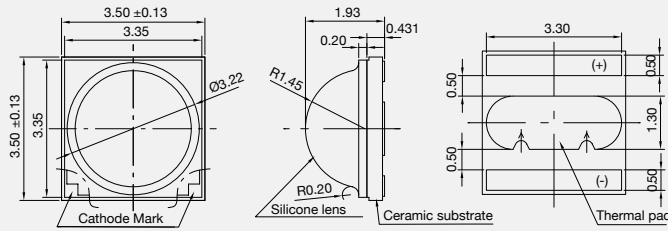
CRI	CCT (K)	Luminous Flux (lm)		IF (mA)	Substrate	1V Sorting	Part Number
		Min.	Max.				
84+	2200	500	550	40	FPC	-	SPMWH1FFB4D59RYT42

LH351B



Cost effective solution for outdoor & directional lighting applications

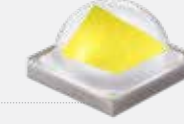
- Operates at a maximum current of up to 1.5A
- Footprint: 3.5mm x 3.5mm



[350mA, 85°C]

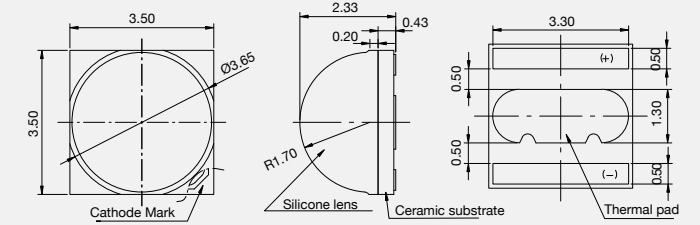
CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
70+	2200	SPHWH2L3D30CD4Y0J3	J1, K1, M1	120	150	
		SPHWH2L3D30CD4Y0K3	K1, M1, N1	130	160	
	2700	SPHWH2L3D30CD4W0K3	K1, M1, N1	130	160	
		SPHWH2L3D30CD4W0M3	M1, N1, P1	140	170	
	3000	SPHWH2L3D30CD4V0M3	M1, N1, P1	140	170	
		SPHWH2L3D30CD4V0N3	N1, P1, Q1	150	180	
	3500	SPHWH2L3D30CD4U0K3	K1, M1, N1	130	160	
		SPHWH2L3D30CD4U0M3	M1, N1, P1	140	170	
	4000	SPHWH2L3D30CD4U0N3	N1, P1, Q1	150	180	
		SPHWH2L3D30CD4T0N3	N1, P1, Q1	150	180	
	5000	SPHWH2L3D30CD4T0P3	P1, Q1, R1	160	190	
		SPHWH2L3D30CD4R0M3	M1, N1, P1	140	170	
	5700	SPHWH2L3D30CD4R0N3	N1, P1, Q1	150	180	
		SPHWH2L3D30CD4R0P3	P1, Q1, R1	160	190	
	6500	SPHWH2L3D30CD4R0Q2	Q1, R1	170	190	
		SPHWH2L3D30CD4Q0N3	N1, P1, Q1	150	180	
	80+	2200	SPHWH2L3D30ED4Y0G3	G1, H1, J1	100	130
			SPHWH2L3D30ED4W0J3	J1, K1, M1	120	150
		2700	SPHWH2L3D30ED4W0K3	K1, M1, N1	130	160
			SPHWH2L3D30ED4V0J3	J1, K1, M1	120	150
3000		SPHWH2L3D30ED4V0K3	K1, M1, N1	130	160	
		SPHWH2L3D30ED4V0M3	M1, N1, P1	140	170	
3500		SPHWH2L3D30ED4U0K3	K1, M1, N1	130	160	
		SPHWH2L3D30ED4U0M3	M1, N1, P1	140	170	
4000		SPHWH2L3D30ED4T0K3	K1, M1, N1	130	160	
		SPHWH2L3D30ED4T0M3	M1, N1, P1	140	170	
5000		SPHWH2L3D30ED4R0M3	M1, N1, P1	140	170	
		SPHWH2L3D30ED4R0N3	N1, P1, Q1	150	180	
5700		SPHWH2L3D30ED4Q0M3	M1, N1, P1	140	170	
		SPHWH2L3D30ED4P0K3	K1, M1, N1	130	160	
6000		SPHWH2L3D30ED4P0M3	M1, N1, P1	140	170	
		SPHWH2L3D30ED4P0K3	K1, M1, N1	130	160	
6500		SPHWH2L3D30ED4P0M3	M1, N1, P1	140	170	
		SPHWH2L3D30ED4P0T3	T1, U1, V1	100	130	
90+		2700	SPHWH2L3D30GD4W0F3	F1, G1, H1	90	120
			SPHWH2L3D30GD4W0G3	G1, H1, J1	100	130
	3000	SPHWH2L3D30GD4V0G3	G1, H1, J1	100	130	
		SPHWH2L3D30GD4V0H3	H1, J1, K1	110	140	
	3500	SPHWH2L3D30GD4U0G3	G1, H1, J1	100	130	
		SPHWH2L3D30GD4U0H3	H1, J1, K1	110	140	
	4000	SPHWH2L3D30GD4T0J3	J1, K1, M1	120	150	
		SPHWH2L3D30GD4T0K3	K1, M1, N1	130	160	

LH351C



High performance suitable for street, high/low bay & sports lighting applications

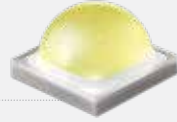
- Operates at a maximum current of up to 2.0A
- Footprint: 3.5mm x 3.5mm



[700mA, 85°C]

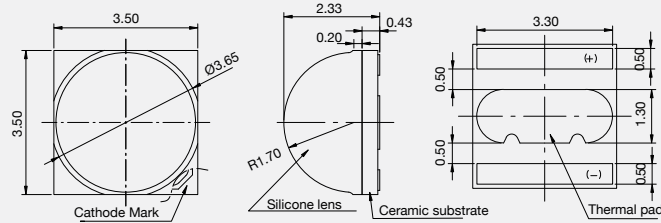
CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
70+	2200	SPHWHTL3D50CE4Y0MF	MB, NB, PB	250	310	
		SPHWHTL3D50CE4W0MF	MB, NB, PB	250	310	
	2700	SPHWHTL3D50CE4W0NF	NB, PB, QB	270	330	
		SPHWHTL3D50CE4V0NF	NB, PB, QB	270	330	
	3000	SPHWHTL3D50CE4V0PF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4V0QF	QB, RB, SB	310	370	
	3500	SPHWHTL3D50CE4U0PF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4U0QF	QB, RB, SB	310	370	
	4000	SPHWHTL3D50CE4T0PF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4T0QF	QB, RB, SB	310	370	
	5000	SPHWHTL3D50CE4R0PF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4R0QF	QB, RB, SB	310	370	
	5700	SPHWHTL3D50CE4Q0PF	PB, QB, RB	310	370	
		SPHWHTL3D50CE4Q0QF	QB, RB, SB	310	370	
	6500	SPHWHTL3D50CE4P0PF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4P0QF	QB, RB, SB	310	370	
	75+	3000	SPHWHTL3D50DE4V0PF	PB, QB, RB	290	350
			SPHWHTL3D50DE4U0PF	PB, QB, RB	290	350
		4000	SPHWHTL3D50DE4T0PF	PB, QB, RB	290	350
			SPHWHTL3D50DE4R0PF	PB, QB, RB	290	350
5000		SPHWHTL3D50DE4R0QF	QB, RB, SB	310	370	
		SPHWHTL3D50DE4Q0PF	PB, QB, RB	290	350	
5700		SPHWHTL3D50DE4Q0QF	QB, RB, SB	310	370	
		SPHWHTL3D50DE4T0QF	QB, RB, SB	310	370	
80+		2700	SPHWHTL3D50EE4W0MF	MB, NB, PB	250	310
			SPHWHTL3D50EE4V0NF	NB, PB, QB	270	330
		3000	SPHWHTL3D50EE4U0NF	NB, PB, QB	270	330
			SPHWHTL3D50EE4T0MF	MB, NB, PB	250	310
		3500	SPHWHTL3D50EE4T0NF	NB, PB, QB	270	330
			SPHWHTL3D50EE4R0TNF	NB, PB, QB	270	330
		4000	SPHWHTL3D50EE4R0TF	PB, QB, RB	290	350
			SPHWHTL3D50EE4Q0TNF	NB, PB, QB	270	330
		5000	SPHWHTL3D50EE4Q0TF	PB, QB, RB	290	350
			SPHWHTL3D50EE4T0JF	JB, KB, MB	210	270
		5700	SPHWHTL3D50EE4V0JF	JB, KB, MB	210	270
			SPHWHTL3D50EE4U0JF	JB, KB, MB	210	270
	90+	2700	SPHWHTL3D50GE4W0HF	HB, JB, KB	190	250
			SPHWHTL3D50GE4W0JF	JB, KB, MB	210	270
		3000	SPHWHTL3D50GE4V0JF	JB, KB, MB	210	270
			SPHWHTL3D50GE4U0JF	KB, MB, NB	230	290
		3500	SPHWHTL3D50GE4U0KF	KB, MB, NB	230	290
			SPHWHTL3D50GE4T0JF	JB, KB, MB	210	270
		4000	SPHWHTL3D50GE4T0KF	KB, MB, NB	230	290
			SPHWHTL3D50GE4R0TF	KB, MB, NB	230	290
5000		SPHWHTL3D50GE4R0TMF	MB, NB, PB	250	310	
		SPHWHTL3D50GE4Q0TF	KB, MB, NB	230	290	
5700		SPHWHTL3D50GE4Q0TMF	MB, NB, PB	250	310	

LH351D



Best solution for high lumen output:
street & sports lighting applications

- Operates at a maximum current of up to 3.0A
- Footprint: 3.5mm x 3.5mm



[1050mA, 85°C]

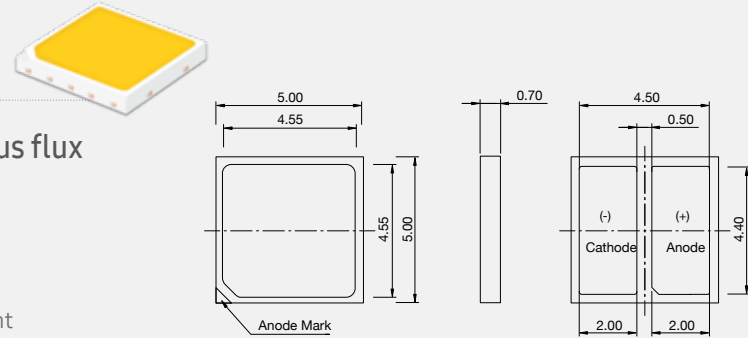
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SPHWHTL3DA0CF4W0S6	S2, T2, U2	380	420
		SPHWHTL3DA0CF4W0T6	T2, U2, V2	400	440
	3000	SPHWHTL3DA0CF4V0T6	T2, U2, V2	400	440
		SPHWHTL3DA0CF4V0U6	U2, V2, W2	420	460
		SPHWHTL3DA0CF4V0V6	V2, W2, Y2	440	480
		SPHWHTL3DA0CF4V0W6	W2, Y2, Z2	460	500
	3500	SPHWHTL3DA0CF4U0V6	V2, W2, Y2	440	480
		SPHWHTL3DA0CF4U0W6	W2, Y2, Z2	460	500
	4000	SPHWHTL3DA0CF4T0W6	W2, Y2, Z2	460	520
		SPHWHTL3DA0CF4T0Y6	Y2, Z2, 12	480	540
	5000	SPHWHTL3DA0CF4RTW6	W2, Y2, Z2	460	500
		SPHWHTL3DA0CF4RTY6	Y2, Z2, 12	480	520
	5700	SPHWHTL3DA0CF4RTZ6	Z2, 12, 22	500	540
		SPHWHTL3DA0CF4QTV6	V2, W2, Y2	440	480
		SPHWHTL3DA0CF4QTW6	W2, Y2, Z2	460	500
		SPHWHTL3DA0CF4QTY6	Y2, Z2, 12	480	520
	6500	SPHWHTL3DA0CF4PTW6	W2, Y2, Z2	460	500
		SPHWHTL3DA0CF4PTY6	Y2, Z2, 12	480	520

CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
80+	2700	SPHWHTL3DA0EF4W0Q6	Q2, R2, S2	340	380	
		SPHWHTL3DA0EF4W0R6	R2, S2, T2	360	400	
	3000	SPHWHTL3DA0EF4V0R6	R2, S2, T2	360	400	
		SPHWHTL3DA0EF4U0R6	R2, S2, T2	360	400	
	3500	SPHWHTL3DA0EF4U0S6	S2, T2, U2	380	420	
		SPHWHTL3DA0EF4T0S6	S2, T2, U2	380	420	
	4000	SPHWHTL3DA0EF4T0T6	T2, U2, V2	400	440	
		SPHWHTL3DA0EF4RTS6	S2, T2, U2	380	420	
	5000	SPHWHTL3DA0EF4RTT6	T2, U2, V2	400	440	
		SPHWHTL3DA0EF4RTU6	U2, V2, W2	420	460	
	5300	SPHWHTL3DA0EF4QRT6	T2, U2, V2	400	440	
		SPHWHTL3DA0EF4QRU6	U2, V2, W2	420	460	
	5700	SPHWHTL3DA0EF4QTT6	T2, U2, V2	400	440	
		SPHWHTL3DA0EF4QTU6	U2, V2, W2	420	460	
	6000	SPHWHTL3DA0EF4PQT6	T2, U2, V2	400	440	
		SPHWHTL3DA0EF4PQU6	U2, V2, W2	420	460	
	6500	SPHWHTL3DA0EF4PTT6	T2, U2, V2	400	440	
		SPHWHTL3DA0EF4PTU6	U2, V2, W2	420	460	
	90+	2700	SPHWHTL3DA0GF4W0M6	M2, N2, P2	280	320
			SPHWHTL3DA0GF4W0N6	N2, P2, Q2	300	340
3000		SPHWHTL3DA0GF4V0N6	N2, P2, Q2	300	340	
		SPHWHTL3DA0GF4V0P6	P2, Q2, R2	320	360	
3500		SPHWHTL3DA0GF4U0N6	N2, P2, Q2	300	340	
		SPHWHTL3DA0GF4U0P6	P2, Q2, R2	320	360	
4000		SPHWHTL3DA0GF4T0P6	P2, Q2, R2	320	360	
		SPHWHTL3DA0GF4T0Q6	Q2, R2, S2	340	380	
5000		SPHWHTL3DA0GF4RTR6	R2, S2, T2	360	400	
		SPHWHTL3DA0GF4RTS6	S2, T2, U2	380	420	
6000		SPHWHTL3DA0GF4PQR6	R2, S2, T2	360	400	
		SPHWHTL3DA0GF4PQS6	S2, T2, U2	380	420	

LH502C

Designed for best lm/\$ with high luminous flux

- 6V high power LED
- EMC mold resin for high reliability
- Improved color quality
- Anti-sulfuriaztion
- Suitable for street light, high/low bay light & spot light
- Design flexible footprint: 5.0mm × 5.0mm



[640mA, 25°C]

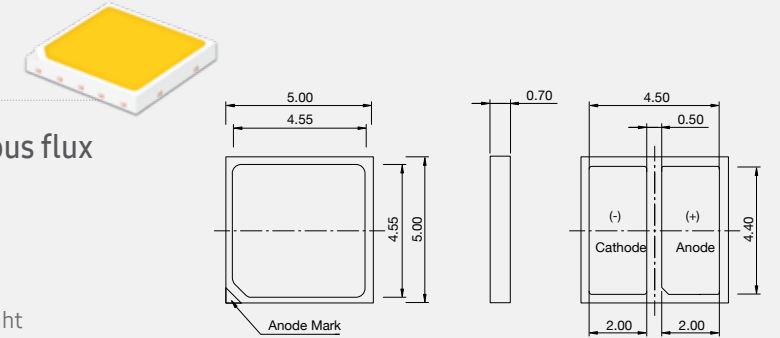
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Typ.
70+	2700	SPHWH1L5N603YEW★A2	A2	590	630
	3000	SPHWH1L5N603YEV★A2	A2	620	658
	3500	SPHWH1L5N603YEU★A2	A2	640	679
	4000	SPHWH1L5N603YET★A2	A2	660	700
	5000	SPHWH1L5N603YER★A2	A2	660	700
	5700	SPHWH1L5N603YEQ★A2	A2	650	693
	6500	SPHWH1L5N603YEP★A2	A2	640	686
80+	2700	SPHWH1L5N605YEW★A2	A2	540	580
	3000	SPHWH1L5N605YEV★A2	A2	570	605
	3500	SPHWH1L5N605YEU★A2	A2	580	625
	4000	SPHWH1L5N605YET★A2	A2	600	644
	5000	SPHWH1L5N605YER★A2	A2	600	644
	5700	SPHWH1L5N605YEQ★A2	A2	600	638
	6500	SPHWH1L5N605YEP★A2	A2	590	631
90+	2700	SPHWH1L5N607YEW★A2	A2	460	493
	3000	SPHWH1L5N607YEV★A2	A2	480	515
	3500	SPHWH1L5N607YEU★A2	A2	500	531
	4000	SPHWH1L5N607YET★A2	A2	510	547
	5000	SPHWH1L5N607YER★A2	A2	510	547
	5700	SPHWH1L5N607YEQ★A2	A2	510	542

★Can be replaced with '5' for the Mac5 color binning, or '3' for the Mac3 color binning

LH508C

Designed for best lm/\$ with high luminous flux

- 24V high power LED
- EMC mold resin for high reliability
- Improved color quality
- Anti-sulfuriaztion
- Suitable for street light, high/low bay light & spot light
- Design flexible footprint: 5.0mm × 5.0mm



[160mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Typ.
70+	2700	SPHWH1L5N603XEW★A2	A2	590	630
	3000	SPHWH1L5N603XEV★A2	A2	620	658
	3500	SPHWH1L5N603XEU★A2	A2	640	679
	4000	SPHWH1L5N603XET★A2	A2	660	700
	5000	SPHWH1L5N603XER★A2	A2	660	700
	5700	SPHWH1L5N603XEQ★A2	A2	650	693
	6500	SPHWH1L5N603XEP★A2	A2	640	686
80+	2700	SPHWH1L5N605XEW★A2	A2	540	580
	3000	SPHWH1L5N605XEV★A2	A2	570	605
	3500	SPHWH1L5N605XEU★A2	A2	580	625
	4000	SPHWH1L5N605XET★A2	A2	600	644
	5000	SPHWH1L5N605XER★A2	A2	600	644
	5700	SPHWH1L5N605XEQ★A2	A2	600	638
	6500	SPHWH1L5N605XEP★A2	A2	590	631
90+	2700	SPHWH1L5N607XEW★A2	A2	460	493
	3000	SPHWH1L5N607XEV★A2	A2	480	515
	3500	SPHWH1L5N607XEU★A2	A2	500	531
	4000	SPHWH1L5N607XET★A2	A2	510	547
	5000	SPHWH1L5N607XER★A2	A2	510	547
	5700	SPHWH1L5N607XEQ★A2	A2	510	542

★Can be replaced with '5' for the Mac5 color binning, or '3' for the Mac3 color binning

D Series Gen 3

Full line-up for various applications: MR/PAR, spotlights, downlights & high bay lights

- Industry-leading light efficacy in COB lineups
- Better thermal resistance than Gen 2
- High reliability satisfying DLC Premium standards
- Completed 6,000 hours of LM-80 testing

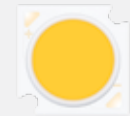
T _J =85°C	LC003D Gen 3	LC006D Gen 3	LC009D Gen 3	LC013D Gen 3	LC016D Gen 3	LC019D Gen 3	LC026D Gen 3	LC033D Gen 3	LC040D Gen 3	LC060D Gen 3	LC080D Gen 3
LES	9.8mm			14.5mm				22 mm			
Typical	3.0W (90 mA)	6.1W (180 mA)	9.1W (270 mA)	12.2W (360 mA)	15.2W (450 mA)	18.3W (540 mA)	24.3W (720 mA)	30.4W (900 mA)	36.5W (1080 mA)	54.8W (1080 mA)	82.1W (1620 mA)
Max.	8.7W (230 mA)	17.4W (460 mA)	26.1W (690 mA)	34.8W (920 mA)	43.5W (1150 mA)	52.2W (1380 mA)	69.6W (1840 mA)	86.9W (2300 mA)	104.3W (2760 mA)	152.9W (2760 mA)	229.3W (4140 mA)
Dimension											
Size	13.5mm x 13.5mm			19mm x 19mm				28mm x 28mm			

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA)	V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC003D Gen 3	2700	80+	MacAdam 1step	SPHWAHDNA25YZW1D3	475	156	90mA	33.8V
			MacAdam 2step	SPHWAHDNA25YZW2D3				
			MacAdam 3step	SPHWAHDNA25YZW3D3				
	3000	80+	MacAdam 1step	SPHWAHDNA25YZV1D3	499	164		
			MacAdam 2step	SPHWAHDNA25YZV2D3				
			MacAdam 3step	SPHWAHDNA25YZV3D3				
	3500	80+	MacAdam 1step	SPHWAHDNA25YZU1D3	514	169		
			MacAdam 2step	SPHWAHDNA25YZU2D3				
			MacAdam 3step	SPHWAHDNA25YZU3D3				
	4000	80+	MacAdam 1step	SPHWAHDNA25YZT1D3	524	172		
			MacAdam 2step	SPHWAHDNA25YZT2D3				
			MacAdam 3step	SPHWAHDNA25YZT3D3				
	5000	80+	MacAdam 2step	SPHWAHDNA25YZR2D3	529	174		
			MacAdam 3step	SPHWAHDNA25YZR3D3				
			MacAdam 2step	SPHWAHDNA25YZQ2D3				
	MacAdam 3step	SPHWAHDNA25YZQ3D3						
	6500	80+	MacAdam 2step	SPHWAHDNA25YZP2D3	524	172		
			MacAdam 3step	SPHWAHDNA25YZP3D3				
MacAdam 1step			SPHWAHDNA27YZW1D3	407			134	
MacAdam 2step	SPHWAHDNA27YZW2D3							
2700	90+	MacAdam 3step	SPHWAHDNA27YZW3D3					
		MacAdam 1step	SPHWAHDNA27YZV1D3	428	141			
		MacAdam 2step	SPHWAHDNA27YZV2D3					
3000	90+	MacAdam 3step	SPHWAHDNA27YZV3D3					
		MacAdam 1step	SPHWAHDNA27YZU1D3	441	145			
		MacAdam 2step	SPHWAHDNA27YZU2D3					
3500	90+	MacAdam 3step	SPHWAHDNA27YZU3D3					
		MacAdam 1step	SPHWAHDNA27YZT1D3	450	148			
		MacAdam 2step	SPHWAHDNA27YZT2D3					
4000	90+	MacAdam 3step	SPHWAHDNA27YZT3D3					
		MacAdam 1step	SPHWAHDNA27YZR2D3	453	149			
		MacAdam 2step	SPHWAHDNA27YZR3D3					
5000	90+	MacAdam 3step	SPHWAHDNA27YZR3D3					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC006D Gen 3	80+	2700	MacAdam 1step	SPHWAHDNB25YZW1D3	946	155	180mA 33.8V
			MacAdam 2step	SPHWAHDNB25YZW2D3			
			MacAdam 3step	SPHWAHDNB25YZW3D3			
	3000	MacAdam 1step	SPHWAHDNB25YZV1D3	994	163		
		MacAdam 2step	SPHWAHDNB25YZV2D3				
		MacAdam 3step	SPHWAHDNB25YZV3D3				
	3500	MacAdam 1step	SPHWAHDNB25YZU1D3	1023	168		
		MacAdam 2step	SPHWAHDNB25YZU2D3				
		MacAdam 3step	SPHWAHDNB25YZU3D3				
	4000	MacAdam 1step	SPHWAHDNB25YZT1D3	1043	171		
		MacAdam 2step	SPHWAHDNB25YZT2D3				
		MacAdam 3step	SPHWAHDNB25YZT3D3				
	5000	MacAdam 2step	SPHWAHDNB25YZR2D3	1052	173		
		MacAdam 3step	SPHWAHDNB25YZR3D3				
		MacAdam 2step	SPHWAHDNB25YZQ2D3			1052	
	MacAdam 3step	SPHWAHDNB25YZQ3D3					
	6500	MacAdam 2step	SPHWAHDNB25YZP2D3	1043	171		
		MacAdam 3step	SPHWAHDNB25YZP3D3				
		2700	MacAdam 1step			SPHWAHDNB27YZW1D3	
	MacAdam 2step		SPHWAHDNB27YZW2D3				
	MacAdam 3step		SPHWAHDNB27YZW3D3				
	3000	MacAdam 1step	SPHWAHDNB27YZV1D3	851	140		
		MacAdam 2step	SPHWAHDNB27YZV2D3				
		MacAdam 3step	SPHWAHDNB27YZV3D3				
3500	MacAdam 1step	SPHWAHDNB27YZU1D3	877	144			
	MacAdam 2step	SPHWAHDNB27YZU2D3					
	MacAdam 3step	SPHWAHDNB27YZU3D3					
4000	MacAdam 1step	SPHWAHDNB27YZT1D3	895	147			
	MacAdam 2step	SPHWAHDNB27YZT2D3					
	MacAdam 3step	SPHWAHDNB27YZT3D3					
5000	MacAdam 2step	SPHWAHDNB27YZR2D3	902	148			
	MacAdam 3step	SPHWAHDNB27YZR3D3					

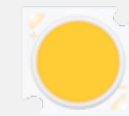


LC006D Gen 3

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC009D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNC23YZV2D3	1594	174	270mA 33.8V
			MacAdam 3step	SPHWAHDNC23YZV3D3			
		4000	MacAdam 2step	SPHWAHDNC23YZT2D3	1624	177	
			MacAdam 3step	SPHWAHDNC23YZT3D3			
		5000	MacAdam 2step	SPHWAHDNC23YZR2D3	1653	180	
			MacAdam 3step	SPHWAHDNC23YZR3D3			
	80+	2700	MacAdam 1step	SPHWAHDNC25YZW1D3	1405	154	
			MacAdam 2step	SPHWAHDNC25YZW2D3			
			MacAdam 3step	SPHWAHDNC25YZW3D3			
		3000	MacAdam 1step	SPHWAHDNC25YZV1D3	1476	162	
			MacAdam 2step	SPHWAHDNC25YZV2D3			
			MacAdam 3step	SPHWAHDNC25YZV3D3			
	3500	MacAdam 1step	SPHWAHDNC25YZU1D3	1519	166		
		MacAdam 2step	SPHWAHDNC25YZU2D3				
		MacAdam 3step	SPHWAHDNC25YZU3D3				
	90+	4000	MacAdam 1step	SPHWAHDNC25YZT1D3	1550	170	
			MacAdam 2step	SPHWAHDNC25YZT2D3			
			MacAdam 3step	SPHWAHDNC25YZT3D3			
		5000	MacAdam 2step	SPHWAHDNC25YZR2D3	1563	171	
			MacAdam 3step	SPHWAHDNC25YZR3D3			
			MacAdam 2step	SPHWAHDNC25YZQ2D3			
	MacAdam 3step	SPHWAHDNC25YZQ3D3					
	90+	6500	MacAdam 2step	SPHWAHDNC25YZP2D3	1550	170	
			MacAdam 3step	SPHWAHDNC25YZP3D3			
MacAdam 1step			SPHWAHDNC27YZW1D3	1202			132
MacAdam 2step		SPHWAHDNC27YZW2D3					
MacAdam 3step		SPHWAHDNC27YZW3D3					
3000		MacAdam 1step	SPHWAHDNC27YZV1D3	1264	139		
	MacAdam 2step	SPHWAHDNC27YZV2D3					
	MacAdam 3step	SPHWAHDNC27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDNC27YZU1D3	1302	143		
		MacAdam 2step	SPHWAHDNC27YZU2D3				
		MacAdam 3step	SPHWAHDNC27YZU3D3				
	4000	MacAdam 1step	SPHWAHDNC27YZT1D3	1329	146		
		MacAdam 2step	SPHWAHDNC27YZT2D3				
		MacAdam 3step	SPHWAHDNC27YZT3D3				
5000	MacAdam 2step	SPHWAHDNC27YZR2D3	1340	147			
	MacAdam 3step	SPHWAHDNC27YZR3D3					

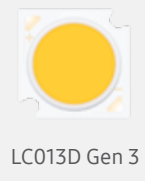


LC009D Gen 3

Chip-on-Board LEDs

Package

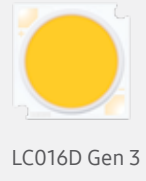
Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC013D Gen 3	70+	3000	MacAdam 2step	SPHWAHDND23YZV2D3	2094	171	360mA 33.8V
			MacAdam 3step	SPHWAHDND23YZV3D3			
		4000	MacAdam 2step	SPHWAHDND23YZT2D3	2133	174	
			MacAdam 3step	SPHWAHDND23YZT3D3			
		5000	MacAdam 2step	SPHWAHDND23YZR2D3	2171	177	
			MacAdam 3step	SPHWAHDND23YZR3D3			
	2700	MacAdam 1step	SPHWAHDND25YZW1D3	1845	152		
		MacAdam 2step	SPHWAHDND25YZW2D3				
		MacAdam 3step	SPHWAHDND25YZW3D3				
	3000	MacAdam 1step	SPHWAHDND25YZV1D3	1939	159		
		MacAdam 2step	SPHWAHDND25YZV2D3				
		MacAdam 3step	SPHWAHDND25YZV3D3				
	3500	MacAdam 1step	SPHWAHDND25YZU1D3	1996	164		
		MacAdam 2step	SPHWAHDND25YZU2D3				
		MacAdam 3step	SPHWAHDND25YZU3D3				
	80+	4000	MacAdam 1step	SPHWAHDND25YZT1D3	2036	167	
			MacAdam 2step	SPHWAHDND25YZT2D3			
			MacAdam 3step	SPHWAHDND25YZT3D3			
		5000	MacAdam 2step	SPHWAHDND25YZR2D3	2053	169	
			MacAdam 3step	SPHWAHDND25YZR3D3			
MacAdam 2step			SPHWAHDND25YZQ2D3	2053			169
MacAdam 3step	SPHWAHDND25YZQ3D3						
6500	MacAdam 2step	SPHWAHDND25YZP2D3	2036	167			
	MacAdam 3step	SPHWAHDND25YZP3D3					
	MacAdam 1step	SPHWAHDND27YZW1D3			1579	130	
2700	MacAdam 2step	SPHWAHDND27YZW2D3					
	MacAdam 3step	SPHWAHDND27YZW3D3					
	3000	MacAdam 1step	SPHWAHDND27YZV1D3	1661	137		
MacAdam 2step		SPHWAHDND27YZV2D3					
MacAdam 3step		SPHWAHDND27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDND27YZU1D3	1710	141		
		MacAdam 2step	SPHWAHDND27YZU2D3				
		MacAdam 3step	SPHWAHDND27YZU3D3				
	4000	MacAdam 1step	SPHWAHDND27YZT1D3	1745	143		
		MacAdam 2step	SPHWAHDND27YZT2D3				
		MacAdam 3step	SPHWAHDND27YZT3D3				
5000	MacAdam 2step	SPHWAHDND37YZR2D3	1760	145			
	MacAdam 3step	SPHWAHDND37YZR3D3					



Chip-on-Board LEDs

Package

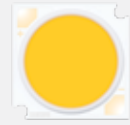
Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC016D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNE23YZV2D3	2697	176	450mA 33.8V
			MacAdam 3step	SPHWAHDNE23YZV3D3			
		4000	MacAdam 2step	SPHWAHDNE23YZT2D3	2747	180	
			MacAdam 3step	SPHWAHDNE23YZT3D3			
		5000	MacAdam 2step	SPHWAHDNE23YZR2D3	2797	183	
			MacAdam 3step	SPHWAHDNE23YZR3D3			
	2700	MacAdam 1step	SPHWAHDNE25YZW1D3	2376	156		
		MacAdam 2step	SPHWAHDNE25YZW2D3				
		MacAdam 3step	SPHWAHDNE25YZW3D3				
	3000	MacAdam 1step	SPHWAHDNE25YZV1D3	2497	164		
		MacAdam 2step	SPHWAHDNE25YZV2D3				
		MacAdam 3step	SPHWAHDNE25YZV3D3				
	3500	MacAdam 1step	SPHWAHDNE25YZU1D3	2570	169		
		MacAdam 2step	SPHWAHDNE25YZU2D3				
		MacAdam 3step	SPHWAHDNE25YZU3D3				
	80+	4000	MacAdam 1step	SPHWAHDNE25YZT1D3	2622	172	
			MacAdam 2step	SPHWAHDNE25YZT2D3			
			MacAdam 3step	SPHWAHDNE25YZT3D3			
		5000	MacAdam 2step	SPHWAHDNE25YZR2D3	2644	174	
			MacAdam 3step	SPHWAHDNE25YZR3D3			
MacAdam 2step			SPHWAHDNE25YZQ2D3	2644			174
MacAdam 3step	SPHWAHDNE25YZQ3D3						
6500	MacAdam 2step	SPHWAHDNE25YZP2D3	2622	172			
	MacAdam 3step	SPHWAHDNE25YZP3D3					
	MacAdam 1step	SPHWAHDNE27YZW1D3			2033	134	
2700	MacAdam 2step	SPHWAHDNE27YZW2D3					
	MacAdam 3step	SPHWAHDNE27YZW3D3					
	3000	MacAdam 1step	SPHWAHDNE27YZV1D3	2139	141		
MacAdam 2step		SPHWAHDNE27YZV2D3					
MacAdam 3step		SPHWAHDNE27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDNE27YZU1D3	2203	145		
		MacAdam 2step	SPHWAHDNE27YZU2D3				
		MacAdam 3step	SPHWAHDNE27YZU3D3				
	4000	MacAdam 1step	SPHWAHDNE27YZT1D3	2248	148		
		MacAdam 2step	SPHWAHDNE27YZT2D3				
		MacAdam 3step	SPHWAHDNE27YZT3D3				
5000	MacAdam 1step	SPHWAHDNE27YZR1D3	2267	149			
	MacAdam 3step	SPHWAHDNE27YZR3D3					



Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC019D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNF23YZV2D3	3220	175	540mA 33.8V
			MacAdam 3step	SPHWAHDNF23YZV3D3			
		4000	MacAdam 2step	SPHWAHDNF23YZT2D3	3280	179	
			MacAdam 3step	SPHWAHDNF23YZT3D3			
		5000	MacAdam 2step	SPHWAHDNF23YZR2D3	3339	182	
			MacAdam 3step	SPHWAHDNF23YZR3D3			
	2700	MacAdam 1step	SPHWAHDNF25YZW1D3	2837	155		
		MacAdam 2step	SPHWAHDNF25YZW2D3				
		MacAdam 3step	SPHWAHDNF25YZW3D3				
	3000	MacAdam 1step	SPHWAHDNF25YZV1D3	2982	163		
		MacAdam 2step	SPHWAHDNF25YZV2D3				
		MacAdam 3step	SPHWAHDNF25YZV3D3				
	3500	MacAdam 1step	SPHWAHDNF25YZU1D3	3069	168		
		MacAdam 2step	SPHWAHDNF25YZU2D3				
		MacAdam 3step	SPHWAHDNF25YZU3D3				
	80+	4000	MacAdam 1step	SPHWAHDNF25YZT1D3	3130	171	
			MacAdam 2step	SPHWAHDNF25YZT2D3			
			MacAdam 3step	SPHWAHDNF25YZT3D3			
	5000	MacAdam 2step	SPHWAHDNF25YZR2D3	3157	173		
		MacAdam 3step	SPHWAHDNF25YZR3D3				
		MacAdam 2step	SPHWAHDNF25YZQ2D3			3157	
	MacAdam 3step	SPHWAHDNF25YZQ3D3					
	6500	MacAdam 2step	SPHWAHDNF25YZP2D3	3130	171		
		MacAdam 3step	SPHWAHDNF25YZP3D3				
MacAdam 1step		SPHWAHDNF27YZW1D3	2428			133	
2700	MacAdam 2step	SPHWAHDNF27YZW2D3					
	MacAdam 3step	SPHWAHDNF27YZW3D3					
	3000	MacAdam 1step	SPHWAHDNF27YZV1D3	2554	140		
MacAdam 2step		SPHWAHDNF27YZV2D3					
MacAdam 3step		SPHWAHDNF27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDNF27YZU1D3	2630	144		
		MacAdam 2step	SPHWAHDNF27YZU2D3				
		MacAdam 3step	SPHWAHDNF27YZU3D3				
4000	MacAdam 1step	SPHWAHDNF27YZT1D3	2684	147			
	MacAdam 2step	SPHWAHDNF27YZT2D3					
	MacAdam 3step	SPHWAHDNF27YZT3D3					
5000	MacAdam 2step	SPHWAHDNF27YZR2D3	2707	148			
	MacAdam 3step	SPHWAHDNF27YZR3D3					

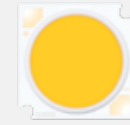


LC019D Gen 3

Chip-on-Board LEDs

Package


Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC026D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNG23YZV2D3	4230	174	720mA 33.8V
			MacAdam 3step	SPHWAHDNG23YZV3D3			
		4000	MacAdam 2step	SPHWAHDNG23YZT2D3	4308	177	
			MacAdam 3step	SPHWAHDNG23YZT3D3			
		5000	MacAdam 2step	SPHWAHDNG23YZR2D3	4387	180	
			MacAdam 3step	SPHWAHDNG23YZR3D3			
	2700	MacAdam 1step	SPHWAHDNG25YZW1D3	3727	153		
		MacAdam 2step	SPHWAHDNG25YZW2D3				
		MacAdam 3step	SPHWAHDNG25YZW3D3				
	3000	MacAdam 1step	SPHWAHDNG25YZV1D3	3917	161		
		MacAdam 2step	SPHWAHDNG25YZV2D3				
		MacAdam 3step	SPHWAHDNG25YZV3D3				
	3500	MacAdam 1step	SPHWAHDNG25YZU1D3	4032	166		
		MacAdam 2step	SPHWAHDNG25YZU2D3				
		MacAdam 3step	SPHWAHDNG25YZU3D3				
	80+	4000	MacAdam 1step	SPHWAHDNG25YZT1D3	4112	169	
			MacAdam 2step	SPHWAHDNG25YZT2D3			
			MacAdam 3step	SPHWAHDNG25YZT3D3			
	5000	MacAdam 2step	SPHWAHDNG25YZR2D3	4147	170		
		MacAdam 3step	SPHWAHDNG25YZR3D3				
		MacAdam 2step	SPHWAHDNG25YZQ2D3			4147	
	MacAdam 3step	SPHWAHDNG25YZQ3D3					
	6500	MacAdam 2step	SPHWAHDNG25YZP2D3	4112	169		
		MacAdam 3step	SPHWAHDNG25YZP3D3				
MacAdam 1step		SPHWAHDNG27YZW1D3	3190			131	
2700	MacAdam 2step	SPHWAHDNG27YZW2D3					
	MacAdam 3step	SPHWAHDNG27YZW3D3					
	3000	MacAdam 1step	SPHWAHDNG27YZV1D3	3355	138		
MacAdam 2step		SPHWAHDNG27YZV2D3					
MacAdam 3step		SPHWAHDNG27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDNG27YZU1D3	3455	142		
		MacAdam 2step	SPHWAHDNG27YZU2D3				
		MacAdam 3step	SPHWAHDNG27YZU3D3				
4000	MacAdam 1step	SPHWAHDNG27YZT1D3	3526	145			
	MacAdam 2step	SPHWAHDNG27YZT2D3					
	MacAdam 3step	SPHWAHDNG27YZT3D3					
5000	MacAdam 2step	SPHWAHDNG27YZR2D3	3556	146			
	MacAdam 3step	SPHWAHDNG27YZR3D3					



LC026D Gen 3


Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC033D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNH23YZV2D3	5235	172	900mA 33.8V
			MacAdam 3step	SPHWAHDNH23YZV3D3			
		4000	MacAdam 2step	SPHWAHDNH23YZT2D3	5332	175	
			MacAdam 3step	SPHWAHDNH23YZT3D3			
		5000	MacAdam 2step	SPHWAHDNH23YZR2D3	5429	178	
			MacAdam 3step	SPHWAHDNH23YZR3D3			
	2700	MacAdam 1step	SPHWAHDNH25YZW1D3	4612	152		
		MacAdam 2step	SPHWAHDNH25YZW2D3				
		MacAdam 3step	SPHWAHDNH25YZW3D3				
	3000	MacAdam 1step	SPHWAHDNH25YZV1D3	4847	159		
		MacAdam 2step	SPHWAHDNH25YZV2D3				
		MacAdam 3step	SPHWAHDNH25YZV3D3				
	3500	MacAdam 1step	SPHWAHDNH25YZU1D3	4989	164		
		MacAdam 2step	SPHWAHDNH25YZU2D3				
		MacAdam 3step	SPHWAHDNH25YZU3D3				
	80+	4000	MacAdam 1step	SPHWAHDNH25YZT1D3	5089	167	
			MacAdam 2step	SPHWAHDNH25YZT2D3			
			MacAdam 3step	SPHWAHDNH25YZT3D3			
	5000	MacAdam 2step	SPHWAHDNH25YZR2D3	5132	169		
		MacAdam 3step	SPHWAHDNH25YZR3D3				
		MacAdam 2step	SPHWAHDNH25YZQ2D3			5132	
	MacAdam 3step	SPHWAHDNH25YZQ3D3					
	6500	MacAdam 2step	SPHWAHDNH25YZP2D3	5089	167		
		MacAdam 3step	SPHWAHDNH25YZP3D3				
MacAdam 1step		SPHWAHDNH27YZW1D3	3947			130	
2700	MacAdam 2step	SPHWAHDNH27YZW2D3					
MacAdam 3step	SPHWAHDNH27YZW3D3						
3000	MacAdam 1step	SPHWAHDNH27YZV1D3	4152	136			
	MacAdam 2step	SPHWAHDNH27YZV2D3					
	MacAdam 3step	SPHWAHDNH27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDNH27YZU1D3	4276	141		
		MacAdam 2step	SPHWAHDNH27YZU2D3				
		MacAdam 3step	SPHWAHDNH27YZU3D3				
4000	MacAdam 1step	SPHWAHDNH27YZT1D3	4364	143			
	MacAdam 2step	SPHWAHDNH27YZT2D3					
	MacAdam 3step	SPHWAHDNH27YZT3D3					
5000	MacAdam 2step	SPHWAHDNH27YZR2D3	4401	145			
	MacAdam 3step	SPHWAHDNH27YZR3D3					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC040D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNK23YZV2D3	6440	176	1080mA 33.8V
			MacAdam 3step	SPHWAHDNK23YZV3D3			
		4000	MacAdam 2step	SPHWAHDNK23YZT2D3	6560	180	
			MacAdam 3step	SPHWAHDNK23YZT3D3			
		5000	MacAdam 2step	SPHWAHDNK23YZR2D3	6679	183	
			MacAdam 3step	SPHWAHDNK23YZR3D3			
	2700	MacAdam 1step	SPHWAHDNK25YZW1D3	5675	155		
		MacAdam 2step	SPHWAHDNK25YZW2D3				
		MacAdam 3step	SPHWAHDNK25YZW3D3				
	3000	MacAdam 1step	SPHWAHDNK25YZV1D3	5963	163		
		MacAdam 2step	SPHWAHDNK25YZV2D3				
		MacAdam 3step	SPHWAHDNK25YZV3D3				
	3500	MacAdam 1step	SPHWAHDNK25YZU1D3	6138	168		
		MacAdam 2step	SPHWAHDNK25YZU2D3				
		MacAdam 3step	SPHWAHDNK25YZU3D3				
	80+	4000	MacAdam 1step	SPHWAHDNK25YZT1D3	6261	172	
			MacAdam 2step	SPHWAHDNK25YZT2D3			
			MacAdam 3step	SPHWAHDNK25YZT3D3			
	5000	MacAdam 2step	SPHWAHDNK25YZR2D3	6313	173		
		MacAdam 3step	SPHWAHDNK25YZR3D3				
		MacAdam 2step	SPHWAHDNK25YZQ2D3			6313	
	MacAdam 3step	SPHWAHDNK25YZQ3D3					
	6500	MacAdam 2step	SPHWAHDNK25YZP2D3	6261	172		
		MacAdam 3step	SPHWAHDNK25YZP3D3				
MacAdam 1step		SPHWAHDNK27YZW1D3	4856			133	
2700	MacAdam 2step	SPHWAHDNK27YZW2D3					
MacAdam 3step	SPHWAHDNK27YZW3D3						
3000	MacAdam 1step	SPHWAHDNK27YZV1D3	5108	140			
	MacAdam 2step	SPHWAHDNK27YZV2D3					
	MacAdam 3step	SPHWAHDNK27YZV3D3					
90+	3500	MacAdam 1step	SPHWAHDNK27YZU1D3	5260	144		
		MacAdam 2step	SPHWAHDNK27YZU2D3				
		MacAdam 3step	SPHWAHDNK27YZU3D3				
4000	MacAdam 1step	SPHWAHDNK27YZT1D3	5369	147			
	MacAdam 2step	SPHWAHDNK27YZT2D3					
	MacAdam 3step	SPHWAHDNK27YZT3D3					
5000	MacAdam 2step	SPHWAHDNK27YZR2D3	5415	148			
	MacAdam 3step	SPHWAHDNK27YZR3D3					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC060D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNL231ZV2D3	9518	174	1080mA 50.7V
			MacAdam 3step	SPHWAHDNL231ZV3D3			
		4000	MacAdam 2step	SPHWAHDNL231ZT2D3	9694	177	
			MacAdam 3step	SPHWAHDNL231ZT3D3			
		5000	MacAdam 2step	SPHWAHDNL231ZR2D3	9870	180	
			MacAdam 3step	SPHWAHDNL231ZR3D3			
	2700	MacAdam 1step	SPHWAHDNL251ZW1D3	8386	153		
		MacAdam 2step	SPHWAHDNL251ZW2D3				
		MacAdam 3step	SPHWAHDNL251ZW3D3				
	80+	3000	MacAdam 1step	SPHWAHDNL251ZV1D3	8813	161	
			MacAdam 2step	SPHWAHDNL251ZV2D3			
			MacAdam 3step	SPHWAHDNL251ZV3D3			
3500		MacAdam 1step	SPHWAHDNL251ZU1D3	9071	166		
		MacAdam 2step	SPHWAHDNL251ZU2D3				
		MacAdam 3step	SPHWAHDNL251ZU3D3				
90+	4000	MacAdam 1step	SPHWAHDNL251ZT1D3	9253	169		
		MacAdam 2step	SPHWAHDNL251ZT2D3				
		MacAdam 3step	SPHWAHDNL251ZT3D3				
	5000	MacAdam 2step	SPHWAHDNL251ZR2D3	9330	170		
		MacAdam 3step	SPHWAHDNL251ZR3D3				
		MacAdam 2step	SPHWAHDNL251ZQ2D3			9330	170
MacAdam 3step	SPHWAHDNL251ZQ3D3						
2700	6500	MacAdam 2step	SPHWAHDNL251ZP2D3	9253	169		
		MacAdam 3step	SPHWAHDNL251ZP3D3				
		MacAdam 1step	SPHWAHDNL271ZW1D3			7177	131
	MacAdam 2step	SPHWAHDNL271ZW2D3					
	MacAdam 3step	SPHWAHDNL271ZW3D3					
	3000	MacAdam 1step	SPHWAHDNL271ZV1D3	7549	138		
MacAdam 2step			SPHWAHDNL271ZV2D3				
MacAdam 3step			SPHWAHDNL271ZV3D3				
3500		MacAdam 1step	SPHWAHDNL271ZU1D3	7774	142		
		MacAdam 2step	SPHWAHDNL271ZU2D3				
		MacAdam 3step	SPHWAHDNL271ZU3D3				
4000	MacAdam 1step	SPHWAHDNL271ZT1D3	7934	145			
	MacAdam 2step	SPHWAHDNL271ZT2D3					
	MacAdam 3step	SPHWAHDNL271ZT3D3					
5000	MacAdam 2step	SPHWAHDNL271ZR2D3	8002	146			
	MacAdam 3step	SPHWAHDNL271ZR3D3					

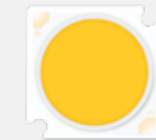


LC060D Gen 3

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC080D Gen 3	70+	3000	MacAdam 2step	SPHWAHDNM231ZV2D3	14115	172	1620mA 50.7V
			MacAdam 3step	SPHWAHDNM231ZV3D3			
		4000	MacAdam 2step	SPHWAHDNM231ZT2D3	14376	175	
			MacAdam 3step	SPHWAHDNM231ZT3D3			
		5000	MacAdam 2step	SPHWAHDNM231ZR2D3	14637	178	
			MacAdam 3step	SPHWAHDNM231ZR3D3			
	2700	MacAdam 1step	SPHWAHDNM251ZW1D3	12437	151		
		MacAdam 2step	SPHWAHDNM251ZW2D3				
		MacAdam 3step	SPHWAHDNM251ZW3D3				
	80+	3000	MacAdam 1step	SPHWAHDNM251ZV1D3	13069	159	
			MacAdam 2step	SPHWAHDNM251ZV2D3			
			MacAdam 3step	SPHWAHDNM251ZV3D3			
3500		MacAdam 1step	SPHWAHDNM251ZU1D3	13452	164		
		MacAdam 2step	SPHWAHDNM251ZU2D3				
		MacAdam 3step	SPHWAHDNM251ZU3D3				
90+	4000	MacAdam 1step	SPHWAHDNM251ZT1D3	13721	167		
		MacAdam 2step	SPHWAHDNM251ZT2D3				
		MacAdam 3step	SPHWAHDNM251ZT3D3				
	5000	MacAdam 2step	SPHWAHDNM251ZR2D3	13836	168		
		MacAdam 3step	SPHWAHDNM251ZR3D3				
		MacAdam 2step	SPHWAHDNM251ZQ2D3			13836	168
MacAdam 3step	SPHWAHDNM251ZQ3D3						
2700	6500	MacAdam 2step	SPHWAHDNM251ZP2D3	13721	167		
		MacAdam 3step	SPHWAHDNM251ZP3D3				
		MacAdam 1step	SPHWAHDNM271ZW1D3			10643	130
	MacAdam 2step	SPHWAHDNM271ZW2D3					
	MacAdam 3step	SPHWAHDNM271ZW3D3					
	3000	MacAdam 1step	SPHWAHDNM271ZV1D3	11195	136		
MacAdam 2step			SPHWAHDNM271ZV2D3				
MacAdam 3step			SPHWAHDNM271ZV3D3				
3500		MacAdam 1step	SPHWAHDNM271ZU1D3	11529	140		
		MacAdam 2step	SPHWAHDNM271ZU2D3				
		MacAdam 3step	SPHWAHDNM271ZU3D3				
4000	MacAdam 1step	SPHWAHDNM271ZT1D3	11766	143			
	MacAdam 2step	SPHWAHDNM271ZT2D3					
	MacAdam 3step	SPHWAHDNM271ZT3D3					
5000	MacAdam 2step	SPHWAHDNM271ZR2D3	11867	144			
	MacAdam 3step	SPHWAHDNM271ZR3D3					



LC080D Gen 3

D Series Gen 2

Full line-up for various applications: MR/PAR, spotlights, downlights & high bay lights

- Industry-leading light efficacy in COB lineups
- Better thermal resistance than Gen 1
- High reliability satisfying DLC Premium standards
- Completed 6,000 hours of LM-80 testing

T _J =85°C	9.8mm			14.5mm				22 mm			
	LC003D Gen 2	LC006D Gen 2	LC009D Gen 2	LC013D Gen 2	LC016D Gen 2	LC019D Gen 2	LC026D Gen 2	LC033D Gen 2	LC040D Gen 2	LC060D Gen 2	LC080D Gen 2
LES	9.8mm			14.5mm				22 mm			
Typical	3.1 W (90 mA)	6.2 W (180 mA)	9.4 W (270 mA)	12.5 W (360 mA)	15.6 W (450 mA)	18.7 W (540 mA)	24.9 W (720 mA)	31.1W (900 mA)	37.4 W (1080 mA)	56.1 W (1080 mA)	84.2 W (1620 mA)
Max.	8.6 W (230 mA)	17.2W (460 mA)	25.9 W (690 mA)	34.5 W (920 mA)	43.1 W (1150 mA)	51.8 W (1380 mA)	69 W (1840 mA)	86.2 W (2300 mA)	103.5 W (2760 mA)	143.4 W (2760 mA)	215 W (4140 mA)
Dimension											
Size	13.5mm x 13.5mm			19mm x 19mm				28mm x 28mm			

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA)	V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC003D Gen 2	2700	80+	MacAdam 1step	SPHWAHDNA25YZW1D2	459	147	90mA	34.6V
			MacAdam 2step	SPHWAHDNA25YZW2D2				
			MacAdam 3step	SPHWAHDNA25YZW3D2				
	3000	80+	MacAdam 1step	SPHWAHDNA25YZV1D2	483	155		
			MacAdam 2step	SPHWAHDNA25YZV2D2				
			MacAdam 3step	SPHWAHDNA25YZV3D2				
	3500	80+	MacAdam 1step	SPHWAHDNA25YZU1D2	501	161		
			MacAdam 2step	SPHWAHDNA25YZU2D2				
			MacAdam 3step	SPHWAHDNA25YZU3D2				
	4000	80+	MacAdam 1step	SPHWAHDNA25YZT1D2	507	163		
			MacAdam 2step	SPHWAHDNA25YZT2D2				
			MacAdam 3step	SPHWAHDNA25YZT3D2				
	5000	80+	MacAdam 2step	SPHWAHDNA25YZR2D2	513	165		
			MacAdam 3step	SPHWAHDNA25YZR3D2				
			MacAdam 2step	SPHWAHDNA25YZQ2D2				
	MacAdam 3step	SPHWAHDNA25YZQ3D2						
	6500	80+	MacAdam 2step	SPHWAHDNA25YZP2D2	507	163		
			MacAdam 3step	SPHWAHDNA25YZP3D2				
MacAdam 1step			SPHWAHDNA27YZW1D2	388			125	
MacAdam 2step	SPHWAHDNA27YZW2D2							
MacAdam 3step	SPHWAHDNA27YZW3D2							
3000	90+	MacAdam 1step	SPHWAHDNA27YZV1D2	406	130			
		MacAdam 2step	SPHWAHDNA27YZV2D2					
		MacAdam 3step	SPHWAHDNA27YZV3D2					
3500	90+	MacAdam 1step	SPHWAHDNA27YZU1D2	419	135			
		MacAdam 2step	SPHWAHDNA27YZU2D2					
		MacAdam 3step	SPHWAHDNA27YZU3D2					
4000	90+	MacAdam 1step	SPHWAHDNA27YZT1D2	427	137			
		MacAdam 2step	SPHWAHDNA27YZT2D2					
		MacAdam 3step	SPHWAHDNA27YZT3D2					
5000	90+	MacAdam 2step	SPHWAHDNA27YZR2D2	430	138			
		MacAdam 3step	SPHWAHDNA27YZR3D2					

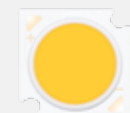
Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC006D Gen 2	80+	2700	MacAdam 1step	SPHWAHDNB25YZW1D2	924	148	180mA 34.6V
			MacAdam 2step	SPHWAHDNB25YZW2D2			
			MacAdam 3step	SPHWAHDNB25YZW3D2			
	3000	MacAdam 1step	SPHWAHDNB25YZV1D2	971	156		
		MacAdam 2step	SPHWAHDNB25YZV2D2				
		MacAdam 3step	SPHWAHDNB25YZV3D2				
	3500	MacAdam 1step	SPHWAHDNB25YZU1D2	1001	161		
		MacAdam 2step	SPHWAHDNB25YZU2D2				
		MacAdam 3step	SPHWAHDNB25YZU3D2				
	4000	MacAdam 1step	SPHWAHDNB25YZT1D2	1024	164		
		MacAdam 2step	SPHWAHDNB25YZT2D2				
		MacAdam 3step	SPHWAHDNB25YZT3D2				
	5000	MacAdam 2step	SPHWAHDNB25YZR2D2	1030	165		
		MacAdam 3step	SPHWAHDNB25YZR3D2				
		MacAdam 2step	SPHWAHDNB25YZQ2D2			1030	
	MacAdam 3step	SPHWAHDNB25YZQ3D2					
	6500	MacAdam 2step	SPHWAHDNB25YZP2D2	1018	163		
		MacAdam 3step	SPHWAHDNB25YZP3D2				
2700		MacAdam 1step	SPHWAHDNB27YZW1D2			786	126
	MacAdam 2step	SPHWAHDNB27YZW2D2					
	MacAdam 3step	SPHWAHDNB27YZW3D2					
3000	MacAdam 1step	SPHWAHDNB27YZV1D2	824	132			
	MacAdam 2step	SPHWAHDNB27YZV2D2					
	MacAdam 3step	SPHWAHDNB27YZV3D2					
3500	MacAdam 1step	SPHWAHDNB27YZU1D2	853	137			
	MacAdam 2step	SPHWAHDNB27YZU2D2					
	MacAdam 3step	SPHWAHDNB27YZU3D2					
4000	MacAdam 1step	SPHWAHDNB27YZT1D2	870	140			
	MacAdam 2step	SPHWAHDNB27YZT2D2					
	MacAdam 3step	SPHWAHDNB27YZT3D2					
5000	MacAdam 2step	SPHWAHDNB27YZR2D2	874	140			
	MacAdam 3step	SPHWAHDNB27YZR3D2					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC009D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNC23YZV2D2	1578	161	270mA 34.6V
			MacAdam 3step	SPHWAHDNC23YZV3D2			
		4000	MacAdam 2step	SPHWAHDNC23YZT2D2	1654	169	
			MacAdam 3step	SPHWAHDNC23YZT3D2			
		5000	MacAdam 2step	SPHWAHDNC23YZR2D2	1707	174	
			MacAdam 3step	SPHWAHDNC23YZR3D2			
	80+	2700	MacAdam 1step	SPHWAHDNC25YZW1D2	1342	144	
			MacAdam 2step	SPHWAHDNC25YZW2D2			
		3000	MacAdam 1step	SPHWAHDNC25YZV1D2	1418	152	
			MacAdam 2step	SPHWAHDNC25YZV2D2			
		3500	MacAdam 3step	SPHWAHDNC25YZV3D2	1459	156	
			MacAdam 1step	SPHWAHDNC25YZU1D2			
	4000	MacAdam 2step	SPHWAHDNC25YZU2D2	1494	160		
		MacAdam 3step	SPHWAHDNC25YZU3D2				
	90+	4000	MacAdam 1step	SPHWAHDNC25YZT1D2	1494	160	
			MacAdam 2step	SPHWAHDNC25YZT2D2			
		5000	MacAdam 3step	SPHWAHDNC25YZT3D2	1506	161	
			MacAdam 1step	SPHWAHDNC25YZR2D2			
5700		MacAdam 2step	SPHWAHDNC25YZQ2D2	1506	161		
		MacAdam 3step	SPHWAHDNC25YZQ3D2				
90+	6500	MacAdam 2step	SPHWAHDNC25YZP2D2	1488	159		
		MacAdam 3step	SPHWAHDNC25YZP3D2				
	2700	MacAdam 1step	SPHWAHDNC27YZW1D2	1152	123		
		MacAdam 2step	SPHWAHDNC27YZW2D2				
	3000	MacAdam 3step	SPHWAHDNC27YZW3D2	1206	129		
		MacAdam 1step	SPHWAHDNC27YZV1D2			1245	133
3500	MacAdam 2step	SPHWAHDNC27YZV2D2	1245	133			
	MacAdam 3step	SPHWAHDNC27YZV3D2					
4000	MacAdam 1step	SPHWAHDNC27YZT1D2	1273	136			
	MacAdam 2step	SPHWAHDNC27YZT2D2					
5000	MacAdam 3step	SPHWAHDNC27YZT3D2	1278	137			
	MacAdam 1step	SPHWAHDNC27YZR2D2			1278	137	
MacAdam 2step	SPHWAHDNC27YZR3D2						

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC013D Gen 2	70+	3000	MacAdam 2step	SPHWAHDND23YZV2D2	2106	161	360mA 34.6V
			MacAdam 3step	SPHWAHDND23YZV3D2			
		4000	MacAdam 2step	SPHWAHDND23YZT2D2	2173	166	
			MacAdam 3step	SPHWAHDND23YZT3D2			
		5000	MacAdam 2step	SPHWAHDND23YZR2D2	2207	169	
			MacAdam 3step	SPHWAHDND23YZR3D2			
	2700	MacAdam 1step	SPHWAHDND25YZW1D2	1764	142		
		MacAdam 2step	SPHWAHDND25YZW2D2				
		MacAdam 3step	SPHWAHDND25YZW3D2				
	3000	MacAdam 1step	SPHWAHDND25YZV1D2	1857	149		
		MacAdam 2step	SPHWAHDND25YZV2D2				
		MacAdam 3step	SPHWAHDND25YZV3D2				
3500	MacAdam 1step	SPHWAHDND25YZU1D2	1915	154			
	MacAdam 2step	SPHWAHDND25YZU2D2					
	MacAdam 3step	SPHWAHDND25YZU3D2					
4000	MacAdam 1step	SPHWAHDND25YZT1D2	1950	157			
	MacAdam 2step	SPHWAHDND25YZT2D2					
	MacAdam 3step	SPHWAHDND25YZT3D2					
5000	MacAdam 2step	SPHWAHDND25YZR2D2	1967	158			
	MacAdam 3step	SPHWAHDND25YZR3D2					
	MacAdam 2step	SPHWAHDND25YZQ2D2			1967	158	
MacAdam 3step	SPHWAHDND25YZQ3D2						
6500	MacAdam 2step	SPHWAHDND25YZP2D2	1938	156			
	MacAdam 3step	SPHWAHDND25YZP3D2					
	MacAdam 1step	SPHWAHDND27YZW1D2			1509	121	
MacAdam 2step	SPHWAHDND27YZW2D2						
MacAdam 3step	SPHWAHDND27YZW3D2						
3000	MacAdam 1step	SPHWAHDND27YZV1D2	1580	127			
	MacAdam 2step	SPHWAHDND27YZV2D2					
	MacAdam 3step	SPHWAHDND27YZV3D2					
3500	MacAdam 1step	SPHWAHDND27YZU1D2	1635	131			
	MacAdam 2step	SPHWAHDND27YZU2D2					
	MacAdam 3step	SPHWAHDND27YZU3D2					
4000	MacAdam 1step	SPHWAHDND27YZT1D2	1670	134			
	MacAdam 2step	SPHWAHDND27YZT2D2					
	MacAdam 3step	SPHWAHDND27YZT3D2					
5000	MacAdam 2step	SPHWAHDND27YZR2D2	1674	134			
	MacAdam 3step	SPHWAHDND27YZR3D2					
	MacAdam 1step	SPHWAHDND28YZW1D2			1223	98	
MacAdam 2step	SPHWAHDND28YZW2D2						
MacAdam 3step	SPHWAHDND28YZW3D2						
3000	MacAdam 1step	SPHWAHDND28YZV1D2	1285	103			
	MacAdam 2step	SPHWAHDND28YZV2D2					
	MacAdam 3step	SPHWAHDND28YZV3D2					
3500	MacAdam 1step	SPHWAHDND28YZU1D2	1337	107			
	MacAdam 2step	SPHWAHDND28YZU2D2					
	MacAdam 3step	SPHWAHDND28YZU3D2					
4000	MacAdam 1step	SPHWAHDND28YZT1D2	1379	111			
	MacAdam 2step	SPHWAHDND28YZT2D2					
	MacAdam 3step	SPHWAHDND28YZT3D2					
5000	MacAdam 2step	SPHWAHDND28YZR2D2	1390	112			
	MacAdam 3step	SPHWAHDND28YZR3D2					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC016D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNE23YZV2D2	2617	168	450mA 34.6V
			MacAdam 3step	SPHWAHDNE23YZV3D2			
		4000	MacAdam 2step	SPHWAHDNE23YZT2D2	2701	173	
			MacAdam 3step	SPHWAHDNE23YZT3D2			
		5000	MacAdam 2step	SPHWAHDNE23YZR2D2	2742	176	
			MacAdam 3step	SPHWAHDNE23YZR3D2			
	2700	MacAdam 1step	SPHWAHDNE25YZW1D2	2293	147		
		MacAdam 2step	SPHWAHDNE25YZW2D2				
		MacAdam 3step	SPHWAHDNE25YZW3D2				
	3000	MacAdam 1step	SPHWAHDNE25YZV1D2	2423	156		
		MacAdam 2step	SPHWAHDNE25YZV2D2				
		MacAdam 3step	SPHWAHDNE25YZV3D2				
3500	MacAdam 1step	SPHWAHDNE25YZU1D2	2513	161			
	MacAdam 2step	SPHWAHDNE25YZU2D2					
	MacAdam 3step	SPHWAHDNE25YZU3D2					
4000	MacAdam 1step	SPHWAHDNE25YZT1D2	2558	164			
	MacAdam 2step	SPHWAHDNE25YZT2D2					
	MacAdam 3step	SPHWAHDNE25YZT3D2					
5000	MacAdam 2step	SPHWAHDNE25YZR2D2	2581	166			
	MacAdam 3step	SPHWAHDNE25YZR3D2					
	MacAdam 2step	SPHWAHDNE25YZQ2D2			2581	166	
MacAdam 3step	SPHWAHDNE25YZQ3D2						
6500	MacAdam 2step	SPHWAHDNE25YZP2D2	2558	164			
	MacAdam 3step	SPHWAHDNE25YZP3D2					
	MacAdam 1step	SPHWAHDNE27YZW1D2			1967	126	
MacAdam 2step	SPHWAHDNE27YZW2D2						
MacAdam 3step	SPHWAHDNE27YZW3D2						
3000	MacAdam 1step	SPHWAHDNE27YZV1D2	2084	134			
	MacAdam 2step	SPHWAHDNE27YZV2D2					
	MacAdam 3step	SPHWAHDNE27YZV3D2					
3500	MacAdam 1step	SPHWAHDNE27YZU1D2	2146	138			
	MacAdam 2step	SPHWAHDNE27YZU2D2					
	MacAdam 3step	SPHWAHDNE27YZU3D2					
4000	MacAdam 1step	SPHWAHDNE27YZT1D2	2189	141			
	MacAdam 2step	SPHWAHDNE27YZT2D2					
	MacAdam 3step	SPHWAHDNE27YZT3D2					
5000	MacAdam 2step	SPHWAHDNE27YZR2D2	2209	142			
	MacAdam 3step	SPHWAHDNE27YZR3D2					
	MacAdam 1step	SPHWAHDNE28YZW1D2			1575	101	
MacAdam 2step	SPHWAHDNE28YZW2D2						
MacAdam 3step	SPHWAHDNE28YZW3D2						
3000	MacAdam 1step	SPHWAHDNE28YZV1D2	1655	106			
	MacAdam 2step	SPHWAHDNE28YZV2D2					
	MacAdam 3step	SPHWAHDNE28YZV3D2					
3500	MacAdam 1step	SPHWAHDNE28YZU1D2	1722	111			
	MacAdam 2step	SPHWAHDNE28YZU2D2					
	MacAdam 3step	SPHWAHDNE28YZU3D2					
4000	MacAdam 1step	SPHWAHDNE28YZT1D2	1776	114			
	MacAdam 2step	SPHWAHDNE28YZT2D2					
	MacAdam 3step	SPHWAHDNE28YZT3D2					
5000	MacAdam 2step	SPHWAHDNE28YZR2D2	1791	115			
	MacAdam 3step	SPHWAHDNE28YZR3D2					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC019D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNF23YZV2D2	3107	166	540mA 34.6V
			MacAdam 3step	SPHWAHDNF23YZV3D2			
		4000	MacAdam 2step	SPHWAHDNF23YZT2D2	3207	172	
			MacAdam 3step	SPHWAHDNF23YZT3D2			
		5000	MacAdam 2step	SPHWAHDNF23YZR2D2	3256	174	
			MacAdam 3step	SPHWAHDNF23YZR3D2			
	2700	MacAdam 1step	SPHWAHDNF25YZW1D2	2728	146		
		MacAdam 2step	SPHWAHDNF25YZW2D2				
		MacAdam 3step	SPHWAHDNF25YZW3D2				
	3000	MacAdam 1step	SPHWAHDNF25YZV1D2	2877	154		
		MacAdam 2step	SPHWAHDNF25YZV2D2				
		MacAdam 3step	SPHWAHDNF25YZV3D2				
80+	3500	MacAdam 1step	SPHWAHDNF25YZU1D2	2965	159		
		MacAdam 2step	SPHWAHDNF25YZU2D2				
		MacAdam 3step	SPHWAHDNF25YZU3D2				
	4000	MacAdam 1step	SPHWAHDNF25YZT1D2	3026	162		
		MacAdam 2step	SPHWAHDNF25YZT2D2				
		MacAdam 3step	SPHWAHDNF25YZT3D2				
5000	MacAdam 2step	SPHWAHDNF25YZR2D2	3059	164			
	MacAdam 3step	SPHWAHDNF25YZR3D2					
	MacAdam 2step	SPHWAHDNF25YZQ2D2			3059	164	
MacAdam 3step	SPHWAHDNF25YZQ3D2						
90+	6500	MacAdam 2step	SPHWAHDNF25YZP2D2	3026	162		
		MacAdam 3step	SPHWAHDNF25YZP3D2				
		MacAdam 1step	SPHWAHDNF27YZW1D2			2336	125
	MacAdam 2step	SPHWAHDNF27YZW2D2					
	MacAdam 3step	SPHWAHDNF27YZW3D2					
	95+	3000	MacAdam 1step	SPHWAHDNF27YZV1D2	2449	131	
MacAdam 2step			SPHWAHDNF27YZV2D2				
MacAdam 3step			SPHWAHDNF27YZV3D2				
3500		MacAdam 1step	SPHWAHDNF27YZU1D2	2539	136		
		MacAdam 2step	SPHWAHDNF27YZU2D2				
		MacAdam 3step	SPHWAHDNF27YZU3D2				
4000	MacAdam 1step	SPHWAHDNF27YZT1D2	2594	139			
	MacAdam 2step	SPHWAHDNF27YZT2D2					
	MacAdam 3step	SPHWAHDNF27YZT3D2					
5000	MacAdam 2step	SPHWAHDNF27YZR2D2	2596	139			
	MacAdam 3step	SPHWAHDNF27YZR3D2					
	MacAdam 1step	SPHWAHDNF28YZW1D2			1880	101	
MacAdam 2step	SPHWAHDNF28YZW2D2						
MacAdam 3step	SPHWAHDNF28YZW3D2						
95+	3000	MacAdam 1step	SPHWAHDNF28YZV1D2	1976	106		
		MacAdam 2step	SPHWAHDNF28YZV2D2				
		MacAdam 3step	SPHWAHDNF28YZV3D2				
	3500	MacAdam 1step	SPHWAHDNF28YZU1D2	2056	110		
		MacAdam 2step	SPHWAHDNF28YZU2D2				
		MacAdam 3step	SPHWAHDNF28YZU3D2				
4000	MacAdam 1step	SPHWAHDNF28YZT1D2	2121	114			
	MacAdam 2step	SPHWAHDNF28YZT2D2					
	MacAdam 3step	SPHWAHDNF28YZT3D2					
5000	MacAdam 2step	SPHWAHDNF28YZR2D2	2138	114			
	MacAdam 3step	SPHWAHDNF28YZR3D2					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC026D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNG23YZV2D2	4063	163	720mA 34.6V
			MacAdam 3step	SPHWAHDNG23YZV3D2			
		4000	MacAdam 2step	SPHWAHDNG23YZT2D2	4193	168	
			MacAdam 3step	SPHWAHDNG23YZT3D2			
		5000	MacAdam 2step	SPHWAHDNG23YZR2D2	4258	171	
			MacAdam 3step	SPHWAHDNG23YZR3D2			
	2700	MacAdam 1step	SPHWAHDNG25YZW1D2	3580	144		
		MacAdam 2step	SPHWAHDNG25YZW2D2				
		MacAdam 3step	SPHWAHDNG25YZW3D2				
	3000	MacAdam 1step	SPHWAHDNG25YZV1D2	3762	151		
		MacAdam 2step	SPHWAHDNG25YZV2D2				
		MacAdam 3step	SPHWAHDNG25YZV3D2				
80+	3500	MacAdam 1step	SPHWAHDNG25YZU1D2	3872	155		
		MacAdam 2step	SPHWAHDNG25YZU2D2				
		MacAdam 3step	SPHWAHDNG25YZU3D2				
	4000	MacAdam 1step	SPHWAHDNG25YZT1D2	3950	159		
		MacAdam 2step	SPHWAHDNG25YZT2D2				
		MacAdam 3step	SPHWAHDNG25YZT3D2				
5000	MacAdam 2step	SPHWAHDNG25YZR2D2	3983	160			
	MacAdam 3step	SPHWAHDNG25YZR3D2					
	MacAdam 2step	SPHWAHDNG25YZQ2D2			3983	160	
MacAdam 3step	SPHWAHDNG25YZQ3D2						
90+	6500	MacAdam 2step	SPHWAHDNG25YZP2D2	3950	159		
		MacAdam 3step	SPHWAHDNG25YZP3D2				
		MacAdam 1step	SPHWAHDNG27YZW1D2			3064	123
	MacAdam 2step	SPHWAHDNG27YZW2D2					
	MacAdam 3step	SPHWAHDNG27YZW3D2					
	95+	3000	MacAdam 1step	SPHWAHDNG27YZV1D2	3223	129	
MacAdam 2step			SPHWAHDNG27YZV2D2				
MacAdam 3step			SPHWAHDNG27YZV3D2				
3500		MacAdam 1step	SPHWAHDNG27YZU1D2	3319	133		
		MacAdam 2step	SPHWAHDNG27YZU2D2				
		MacAdam 3step	SPHWAHDNG27YZU3D2				
4000	MacAdam 1step	SPHWAHDNG27YZT1D2	3387	136			
	MacAdam 2step	SPHWAHDNG27YZT2D2					
	MacAdam 3step	SPHWAHDNG27YZT3D2					
5000	MacAdam 2step	SPHWAHDNG27YZR2D2	3416	137			
	MacAdam 3step	SPHWAHDNG27YZR3D2					
	MacAdam 1step	SPHWAHDNG28YZW1D2			2470	99	
MacAdam 2step	SPHWAHDNG28YZW2D2						
MacAdam 3step	SPHWAHDNG28YZW3D2						
95+	3000	MacAdam 1step	SPHWAHDNG28YZV1D2	2596	104		
		MacAdam 2step	SPHWAHDNG28YZV2D2				
		MacAdam 3step	SPHWAHDNG28YZV3D2				
	3500	MacAdam 1step	SPHWAHDNG28YZU1D2	2701	108		
		MacAdam 2step	SPHWAHDNG28YZU2D2				
		MacAdam 3step	SPHWAHDNG28YZU3D2				
4000	MacAdam 1step	SPHWAHDNG28YZT1D2	2786	112			
	MacAdam 2step	SPHWAHDNG28YZT2D2					
	MacAdam 3step	SPHWAHDNG28YZT3D2					
5000	MacAdam 2step	SPHWAHDNG28YZR2D2	2809	113			
	MacAdam 3step	SPHWAHDNG28YZR3D2					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC033D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNH23YZV2D2	5014	161	900mA 34.6V
			MacAdam 3step	SPHWAHDNH23YZV3D2			
		4000	MacAdam 2step	SPHWAHDNH23YZT2D2	5175	166	
			MacAdam 3step	SPHWAHDNH23YZT3D2			
		5000	MacAdam 2step	SPHWAHDNH23YZR2D2	5255	169	
			MacAdam 3step	SPHWAHDNH23YZR3D2			
	2700	MacAdam 1step	SPHWAHDNH25YZW1D2	4418	142		
		MacAdam 2step	SPHWAHDNH25YZW2D2				
		MacAdam 3step	SPHWAHDNH25YZW3D2				
	3000	MacAdam 1step	SPHWAHDNH25YZV1D2	4643	149		
		MacAdam 2step	SPHWAHDNH25YZV2D2				
		MacAdam 3step	SPHWAHDNH25YZV3D2				
3500	MacAdam 1step	SPHWAHDNH25YZU1D2	4779	153			
	MacAdam 2step	SPHWAHDNH25YZU2D2					
	MacAdam 3step	SPHWAHDNH25YZU3D2					
80+	4000	MacAdam 1step	SPHWAHDNH25YZT1D2	4875	157		
		MacAdam 2step	SPHWAHDNH25YZT2D2				
		MacAdam 3step	SPHWAHDNH25YZT3D2				
	5000	MacAdam 2step	SPHWAHDNH25YZR2D2	4916	158		
		MacAdam 3step	SPHWAHDNH25YZR3D2				
	5700	MacAdam 2step	SPHWAHDNH25YZQ2D2	4916	158		
MacAdam 3step		SPHWAHDNH25YZQ3D2					
6500	MacAdam 2step	SPHWAHDNH25YZP2D2	4875	157			
	MacAdam 3step	SPHWAHDNH25YZP3D2					
	MacAdam 1step	SPHWAHDNH27YZW1D2					
2700	MacAdam 2step	SPHWAHDNH27YZW2D2	3781	121			
	MacAdam 3step	SPHWAHDNH27YZW3D2					
	MacAdam 1step	SPHWAHDNH27YZV1D2					
3000	MacAdam 2step	SPHWAHDNH27YZV2D2	3977	128			
	MacAdam 3step	SPHWAHDNH27YZV3D2					
	MacAdam 1step	SPHWAHDNH27YZU1D2					
3500	MacAdam 2step	SPHWAHDNH27YZU2D2	4096	132			
	MacAdam 3step	SPHWAHDNH27YZU3D2					
	MacAdam 1step	SPHWAHDNH27YZT1D2					
4000	MacAdam 2step	SPHWAHDNH27YZT2D2	4180	134			
	MacAdam 3step	SPHWAHDNH27YZT3D2					
	MacAdam 1step	SPHWAHDNH27YZR2D2					
5000	MacAdam 2step	SPHWAHDNH27YZR2D2	4216	135			
	MacAdam 3step	SPHWAHDNH27YZR3D2					
	MacAdam 1step	SPHWAHDNH28YZW1D2					
2700	MacAdam 2step	SPHWAHDNH28YZW2D2	3057	98			
	MacAdam 3step	SPHWAHDNH28YZW3D2					
	MacAdam 1step	SPHWAHDNH28YZV1D2					
3000	MacAdam 2step	SPHWAHDNH28YZV2D2	3212	103			
	MacAdam 3step	SPHWAHDNH28YZV3D2					
	MacAdam 1step	SPHWAHDNH28YZU1D2					
3500	MacAdam 2step	SPHWAHDNH28YZU2D2	3343	107			
	MacAdam 3step	SPHWAHDNH28YZU3D2					
	MacAdam 1step	SPHWAHDNH28YZT1D2					
4000	MacAdam 2step	SPHWAHDNH28YZT2D2	3447	111			
	MacAdam 3step	SPHWAHDNH28YZT3D2					
	MacAdam 1step	SPHWAHDNH28YZR2D2					
5000	MacAdam 2step	SPHWAHDNH28YZR2D2	3476	112			
	MacAdam 3step	SPHWAHDNH28YZR3D2					

Chip-on-Board LEDs

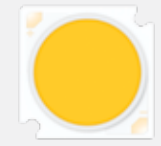
Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC040D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNK23YZV2D2	6304	169	1080mA 34.6V
			MacAdam 3step	SPHWAHDNK23YZV3D2			
		4000	MacAdam 2step	SPHWAHDNK23YZT2D2	6506	174	
			MacAdam 3step	SPHWAHDNK23YZT3D2			
		5000	MacAdam 2step	SPHWAHDNK23YZR2D2	6607	177	
			MacAdam 3step	SPHWAHDNK23YZR3D2			
	2700	MacAdam 1step	SPHWAHDNK25YZW1D2	5547	148		
		MacAdam 2step	SPHWAHDNK25YZW2D2				
		MacAdam 3step	SPHWAHDNK25YZW3D2				
	3000	MacAdam 1step	SPHWAHDNK25YZV1D2	5837	156		
		MacAdam 2step	SPHWAHDNK25YZV2D2				
		MacAdam 3step	SPHWAHDNK25YZV3D2				
3500	MacAdam 1step	SPHWAHDNK25YZU1D2	6016	161			
	MacAdam 2step	SPHWAHDNK25YZU2D2					
	MacAdam 3step	SPHWAHDNK25YZU3D2					
80+	4000	MacAdam 1step	SPHWAHDNK25YZT1D2	6146	164		
		MacAdam 2step	SPHWAHDNK25YZT2D2				
		MacAdam 3step	SPHWAHDNK25YZT3D2				
	5000	MacAdam 2step	SPHWAHDNK25YZR2D2	6175	165		
		MacAdam 3step	SPHWAHDNK25YZR3D2				
	5700	MacAdam 2step	SPHWAHDNK25YZQ2D2	6205	166		
MacAdam 3step		SPHWAHDNK25YZQ3D2					
6500	MacAdam 2step	SPHWAHDNK25YZP2D2	6138	164			
	MacAdam 3step	SPHWAHDNK25YZP3D2					
	MacAdam 1step	SPHWAHDNK27YZW1D2					
2700	MacAdam 2step	SPHWAHDNK27YZW2D2	4755	127			
	MacAdam 3step	SPHWAHDNK27YZW3D2					
	MacAdam 1step	SPHWAHDNK27YZV1D2					
3000	MacAdam 2step	SPHWAHDNK27YZV2D2	5024	134			
	MacAdam 3step	SPHWAHDNK27YZV3D2					
	MacAdam 1step	SPHWAHDNK27YZU1D2					
3500	MacAdam 2step	SPHWAHDNK27YZU2D2	5152	138			
	MacAdam 3step	SPHWAHDNK27YZU3D2					
	MacAdam 1step	SPHWAHDNK27YZT1D2					
4000	MacAdam 2step	SPHWAHDNK27YZT2D2	5266	141			
	MacAdam 3step	SPHWAHDNK27YZT3D2					
	MacAdam 1step	SPHWAHDNK27YZR2D2					
5000	MacAdam 2step	SPHWAHDNK27YZR2D2	5325	143			
	MacAdam 3step	SPHWAHDNK27YZR3D2					
	MacAdam 1step	SPHWAHDNK28YZW1D2					
2700	MacAdam 2step	SPHWAHDNK28YZW2D2	3760	101			
	MacAdam 3step	SPHWAHDNK28YZW3D2					
	MacAdam 1step	SPHWAHDNK28YZV1D2					
3000	MacAdam 2step	SPHWAHDNK28YZV2D2	3952	106			
	MacAdam 3step	SPHWAHDNK28YZV3D2					
	MacAdam 1step	SPHWAHDNK28YZU1D2					
3500	MacAdam 2step	SPHWAHDNK28YZU2D2	4113	110			
	MacAdam 3step	SPHWAHDNK28YZU3D2					
	MacAdam 1step	SPHWAHDNK28YZT1D2					
4000	MacAdam 2step	SPHWAHDNK28YZT2D2	4241	113			
	MacAdam 3step	SPHWAHDNK28YZT3D2					
	MacAdam 1step	SPHWAHDNK28YZR2D2					
5000	MacAdam 2step	SPHWAHDNK28YZR2D2	4277	114			
	MacAdam 3step	SPHWAHDNK28YZR3D2					

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC060D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNL231ZV2D2	9225	164	1080mA 52.0V
			MacAdam 3step	SPHWAHDNL231ZV3D2			
		4000	MacAdam 2step	SPHWAHDNL231ZT2D2	9521	170	
			MacAdam 3step	SPHWAHDNL231ZT3D2			
		5000	MacAdam 2step	SPHWAHDNL231ZR2D2	9668	172	
			MacAdam 3step	SPHWAHDNL231ZR3D2			
	2700	MacAdam 1step	SPHWAHDNL251ZW1D2	8107	144		
		MacAdam 2step	SPHWAHDNL251ZW2D2				
		MacAdam 3step	SPHWAHDNL251ZW3D2				
	80+	3000	MacAdam 1step	SPHWAHDNL251ZV1D2	8542	152	
			MacAdam 2step	SPHWAHDNL251ZV2D2			
			MacAdam 3step	SPHWAHDNL251ZV3D2			
3500		MacAdam 1step	SPHWAHDNL251ZU1D2	8812	157		
		MacAdam 2step	SPHWAHDNL251ZU2D2				
		MacAdam 3step	SPHWAHDNL251ZU3D2				
90+	4000	MacAdam 1step	SPHWAHDNL251ZT1D2	8995	160		
		MacAdam 2step	SPHWAHDNL251ZT2D2				
		MacAdam 3step	SPHWAHDNL251ZT3D2				
	5000	MacAdam 2step	SPHWAHDNL251ZR2D2	9039	161		
		MacAdam 3step	SPHWAHDNL251ZR3D2				
		MacAdam 2step	SPHWAHDNL251ZQ2D2			9084	162
MacAdam 3step	SPHWAHDNL251ZQ3D2						
2700	6500	MacAdam 2step	SPHWAHDNL251ZP2D2	8990	160		
		MacAdam 3step	SPHWAHDNL251ZP3D2				
		MacAdam 1step	SPHWAHDNL271ZW1D2			6959	124
	MacAdam 2step	SPHWAHDNL271ZW2D2					
	MacAdam 3step	SPHWAHDNL271ZW3D2					
	3000	MacAdam 1step	SPHWAHDNL271ZV1D2	7352	131		
MacAdam 2step			SPHWAHDNL271ZV2D2				
MacAdam 3step			SPHWAHDNL271ZV3D2				
3500		MacAdam 1step	SPHWAHDNL271ZU1D2	7539	134		
		MacAdam 2step	SPHWAHDNL271ZU2D2				
		MacAdam 3step	SPHWAHDNL271ZU3D2				
4000	MacAdam 1step	SPHWAHDNL271ZT1D2	7706	137			
	MacAdam 2step	SPHWAHDNL271ZT2D2					
	MacAdam 3step	SPHWAHDNL271ZT3D2					
5000	MacAdam 2step	SPHWAHDNL271ZR2D2	7793	139			
	MacAdam 3step	SPHWAHDNL271ZR3D2					

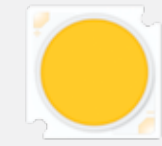


LC060D Gen 2

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC080D Gen 2	70+	3000	MacAdam 2step	SPHWAHDNM231ZV2D2	13465	160	1620mA 52.0V	
			MacAdam 3step	SPHWAHDNM231ZV3D2				
		4000	MacAdam 2step	SPHWAHDNM231ZT2D2	13896	165		
			MacAdam 3step	SPHWAHDNM231ZT3D2				
		5000	MacAdam 2step	SPHWAHDNM231ZR2D2	14112	168		
			MacAdam 3step	SPHWAHDNM231ZR3D2				
		2700	MacAdam 1step	SPHWAHDNM251ZW1D2	11815	140		
			MacAdam 2step	SPHWAHDNM251ZW2D2				
			MacAdam 3step	SPHWAHDNM251ZW3D2				
		80+	3000	MacAdam 1step	SPHWAHDNM251ZV1D2	12468		148
				MacAdam 2step	SPHWAHDNM251ZV2D2			
				MacAdam 3step	SPHWAHDNM251ZV3D2			
	3500		MacAdam 1step	SPHWAHDNM251ZU1D2	12852	153		
			MacAdam 2step	SPHWAHDNM251ZU2D2				
			MacAdam 3step	SPHWAHDNM251ZU3D2				
	90+	4000	MacAdam 1step	SPHWAHDNM251ZT1D2	13123	156		
			MacAdam 2step	SPHWAHDNM251ZT2D2				
			MacAdam 3step	SPHWAHDNM251ZT3D2				
		5000	MacAdam 2step	SPHWAHDNM251ZR2D2	13196	157		
			MacAdam 3step	SPHWAHDNM251ZR3D2				
			MacAdam 2step	SPHWAHDNM251ZQ2D2				13258
	MacAdam 3step	SPHWAHDNM251ZQ3D2						
	2700	6500	MacAdam 2step	SPHWAHDNM251ZP2D2	13121	156		
			MacAdam 3step	SPHWAHDNM251ZP3D2				
MacAdam 1step			SPHWAHDNM271ZW1D2	10157			121	
MacAdam 2step		SPHWAHDNM271ZW2D2						
MacAdam 3step		SPHWAHDNM271ZW3D2						
3000		MacAdam 1step	SPHWAHDNM271ZV1D2	10731	127			
	MacAdam 2step		SPHWAHDNM271ZV2D2					
	MacAdam 3step		SPHWAHDNM271ZV3D2					
	3500	MacAdam 1step	SPHWAHDNM271ZU1D2	11004	131			
		MacAdam 2step	SPHWAHDNM271ZU2D2					
		MacAdam 3step	SPHWAHDNM271ZU3D2					
4000	MacAdam 1step	SPHWAHDNM271ZT1D2	11247	134				
	MacAdam 2step	SPHWAHDNM271ZT2D2						
	MacAdam 3step	SPHWAHDNM271ZT3D2						
5000	MacAdam 2step	SPHWAHDNM271ZR2D2	11375	135				
	MacAdam 3step	SPHWAHDNM271ZR3D2						



LC080D Gen 2

D Series Gen 1

Full line-up for various applications: MR/PAR, spotlights, downlights & flood lights

- Chip-on-Board (COB) solution makes it easy to design in
- Simple assembly reduces manufacturing & tooling cost
- Low thermal resistance
- Completed 6,000 hours of LM-80 testing

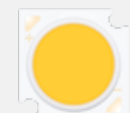
T _J =85°C	LC003D Gen 1	LC006D Gen 1	LC009D Gen 1	LC013D Gen 1	LC016D Gen 1	LC019D Gen 1	LC026D Gen 1	LC040D Gen 1	LC060D Gen 1	LC080D Gen 1
LES	9.8mm			14.5mm				22 mm		
Typical	3.1 W (90 mA)	6.2 W (180 mA)	9.4 W (270 mA)	12.5 W (360 mA)	15.6 W (450 mA)	18.7 W (540 mA)	24.9 W (720 mA)	37.4 W (1080 mA)	56.1 W (1080 mA)	84.2 W (1620 mA)
Max.	8.6 W (230 mA)	17.2 W (460 mA)	25.9 W (690 mA)	34.5 W (920 mA)	43.1 W (1150 mA)	51.8 W (1380 mA)	69 W (1840 mA)	103.5 W (2760 mA)	143.4 W (2760 mA)	215 W (2760 mA)
Dimension										
Size	13.5mm x 13.5mm			19mm x 19mm				28mm x 28mm		

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA)	V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC003D Gen 1	2700	80+	MacAdam 2step	SPHWAHDNA25YZW2A9	413	133	90mA	34.6V
			MacAdam 3step	SPHWAHDNA25YZW3A9				
			MacAdam 2step	SPHWAHDNA25YZW2D1				
			MacAdam 3step	SPHWAHDNA25YZW3D1				
	3000	80+	MacAdam 2step	SPHWAHDNA25YZV2B1	435	140		
			MacAdam 3step	SPHWAHDNA25YZV3B1				
			MacAdam 2step	SPHWAHDNA25YZV2D1				
			MacAdam 3step	SPHWAHDNA25YZV3D1				
	3500	80+	MacAdam 2step	SPHWAHDNA25YZU2B2	451	145		
			MacAdam 3step	SPHWAHDNA25YZU3B2				
			MacAdam 2step	SPHWAHDNA25YZU2D1				
			MacAdam 3step	SPHWAHDNA25YZU3D1				
4000	80+	MacAdam 2step	SPHWAHDNA25YZT2B3	457	147			
		MacAdam 3step	SPHWAHDNA25YZT3B3					
		MacAdam 2step	SPHWAHDNA25YZT2D1					
		MacAdam 3step	SPHWAHDNA25YZT3D1					
5000	80+	MacAdam 3step	SPHWAHDNA25YZR3B3	462	148			
		MacAdam 3step	SPHWAHDNA25YZR3D1	485	156			
5700	80+	MacAdam 3step	SPHWAHDNA25YZQ3B3	462	148			
		MacAdam 3step	SPHWAHDNA25YZQ3D1	485	156			
6500	80+	MacAdam 3step	SPHWAHDNA25YZP3B3	457	147			
		MacAdam 3step	SPHWAHDNA25YZP3D1	480	154			
LC003D Gen 1	2700	90+	MacAdam 2step	SPHWAHDNA27YZW2A3	349	112		
			MacAdam 3step	SPHWAHDNA27YZW3A3				
			MacAdam 2step	SPHWAHDNA27YZW2D1				
			MacAdam 3step	SPHWAHDNA27YZW3D1				
	3000	90+	MacAdam 2step	SPHWAHDNA27YZV2A4	365	117		
			MacAdam 3step	SPHWAHDNA27YZV3A4				
			MacAdam 2step	SPHWAHDNA27YZV2D1				
			MacAdam 3step	SPHWAHDNA27YZV3D1				
	3500	90+	MacAdam 2step	SPHWAHDNA27YZU2A5	377	121		
			MacAdam 3step	SPHWAHDNA27YZU3A5				
			MacAdam 2step	SPHWAHDNA27YZU2D1				
			MacAdam 3step	SPHWAHDNA27YZU3D1				
4000	90+	MacAdam 2step	SPHWAHDNA27YZT2A6	385	124			
		MacAdam 3step	SPHWAHDNA27YZT3A6					
		MacAdam 2step	SPHWAHDNA27YZT2D1					
		MacAdam 3step	SPHWAHDNA27YZT3D1					
5000	90+	MacAdam 3step	SPHWAHDNA27YZR3A6	387	124			
		MacAdam 3step	SPHWAHDNA27YZR3D1	407	131			

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC006D Gen 1	80+	2700	MacAdam 2step	SPHWAHDNB25YZW2E9	832	134	180mA 34.6V
			MacAdam 3step	SPHWAHDNB25YZW3E9			
		MacAdam 2step	SPHWAHDNB25YZW2D1	874	140		
		MacAdam 3step	SPHWAHDNB25YZW3D1				
	3000	MacAdam 2step	SPHWAHDNB25YZV2F3	875	140		
		MacAdam 3step	SPHWAHDNB25YZV3F3				
		MacAdam 2step	SPHWAHDNB25YZV2D1	919	148		
		MacAdam 3step	SPHWAHDNB25YZV3D1				
	3500	MacAdam 2step	SPHWAHDNB25YZU2F5	902	145		
		MacAdam 3step	SPHWAHDNB25YZU3F5				
		MacAdam 2step	SPHWAHDNB25YZU2D1	947	152		
		MacAdam 3step	SPHWAHDNB25YZU3D1				
	4000	MacAdam 2step	SPHWAHDNB25YZT2F8	923	148		
		MacAdam 3step	SPHWAHDNB25YZT3F8				
		MacAdam 2step	SPHWAHDNB25YZT2D1	969	156		
		MacAdam 3step	SPHWAHDNB25YZT3D1				
	5000	MacAdam 3step	SPHWAHDNB25YZR3F8	928	149		
			SPHWAHDNB25YZR3D1	975	157		
	5700	MacAdam 3step	SPHWAHDNB25YZQ3F8	928	149		
			SPHWAHDNB25YZQ3D1	975	157		
	6500	MacAdam 3step	SPHWAHDNB25YZP3F7	918	147		
			SPHWAHDNB25YZP3D1	964	155		
	2700	MacAdam 2step	SPHWAHDNB27YZW2D7	709	114		
			SPHWAHDNB27YZW3D7				
MacAdam 2step		SPHWAHDNB27YZW2D1	744	119			
MacAdam 3step		SPHWAHDNB27YZW3D1					
3000	MacAdam 2step	SPHWAHDNB27YZV2E9	743	119			
	MacAdam 3step	SPHWAHDNB27YZV3E9					
	MacAdam 2step	SPHWAHDNB27YZV2D1	780	125			
	MacAdam 3step	SPHWAHDNB27YZV3D1					
3500	MacAdam 2step	SPHWAHDNB27YZU2E0	768	123			
	MacAdam 3step	SPHWAHDNB27YZU3E0					
	MacAdam 2step	SPHWAHDNB27YZU2D1	807	130			
	MacAdam 3step	SPHWAHDNB27YZU3D1					
4000	MacAdam 2step	SPHWAHDNB27YZT2E4	784	126			
	MacAdam 3step	SPHWAHDNB27YZT3E4					
	MacAdam 2step	SPHWAHDNB27YZT2D1	824	132			
	MacAdam 3step	SPHWAHDNB27YZT3D1					
5000	MacAdam 3step	SPHWAHDNB27YZR3E4	787	126			
		SPHWAHDNB27YZR3D1	827	133			

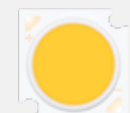


LC006D Gen 1

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC009D Gen 1	80+	2700	MacAdam 2step	SPHWAHDNC25YZW2H1	1209	129	270mA 34.6V
			MacAdam 3step	SPHWAHDNC25YZW3H1			
		MacAdam 2step	SPHWAHDNC25YZW2D1	1270	136		
		MacAdam 3step	SPHWAHDNC25YZW3D1				
	3000	MacAdam 2step	SPHWAHDNC25YZV2H2	1278	137		
		MacAdam 3step	SPHWAHDNC25YZV3H2				
		MacAdam 2step	SPHWAHDNC25YZV2D1	1342	144		
		MacAdam 3step	SPHWAHDNC25YZV3D1				
	3500	MacAdam 2step	SPHWAHDNC25YZU2H2	1315	141		
		MacAdam 3step	SPHWAHDNC25YZU3H2				
		MacAdam 2step	SPHWAHDNC25YZU2D1	1381	148		
		MacAdam 3step	SPHWAHDNC25YZU3D1				
	4000	MacAdam 2step	SPHWAHDNC25YZT2H2	1347	144		
		MacAdam 3step	SPHWAHDNC25YZT3H2				
		MacAdam 2step	SPHWAHDNC25YZT2D1	1414	151		
		MacAdam 3step	SPHWAHDNC25YZT3D1				
	5000	MacAdam 3step	SPHWAHDNC25YZR3H2	1357	145		
			SPHWAHDNC25YZR3D1	1425	153		
	5700	MacAdam 3step	SPHWAHDNC25YZQ3H2	1357	145		
			SPHWAHDNC25YZQ3D1	1425	153		
	6500	MacAdam 3step	SPHWAHDNC25YZP3H2	1341	144		
			SPHWAHDNC25YZP3D1	1408	151		
	2700	MacAdam 2step	SPHWAHDNC27YZW2G8	1038	111		
		MacAdam 3step	SPHWAHDNC27YZW3G8				
MacAdam 2step		SPHWAHDNC27YZW2D1	1090	117			
MacAdam 3step		SPHWAHDNC27YZW3D1					
3000	MacAdam 2step	SPHWAHDNC27YZV2H0	1087	116			
	MacAdam 3step	SPHWAHDNC27YZV3H0					
	MacAdam 2step	SPHWAHDNC27YZV2D1	1141	122			
	MacAdam 3step	SPHWAHDNC27YZV3D1					
3500	MacAdam 2step	SPHWAHDNC27YZU2H0	1122	120			
	MacAdam 3step	SPHWAHDNC27YZU3H0					
	MacAdam 2step	SPHWAHDNC27YZU2D1	1178	126			
	MacAdam 3step	SPHWAHDNC27YZU3D1					
4000	MacAdam 2step	SPHWAHDNC27YZT2H0	1147	123			
	MacAdam 3step	SPHWAHDNC27YZT3H0					
	MacAdam 2step	SPHWAHDNC27YZT2D1	1204	129			
	MacAdam 3step	SPHWAHDNC27YZT3D1					
5000	MacAdam 3step	SPHWAHDNC27YZR3H1	1152	123			
		SPHWAHDNC27YZR3D1	1210	130			



LC009D Gen 1

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC013D Gen 1	80+	2700	MacAdam 2step	SPHWAHDND25YZW2H5	1589	128	360mA 34.6V
			MacAdam 3step	SPHWAHDND25YZW3H5			
			MacAdam 2step	SPHWAHDND25YZW2D1	1669	134	
			MacAdam 3step	SPHWAHDND25YZW3D1			
	3000	MacAdam 2step	SPHWAHDND25YZV2H5	1673	134		
		MacAdam 3step	SPHWAHDND25YZV3H5				
		MacAdam 2step	SPHWAHDND25YZV2D1	1757	141		
		MacAdam 3step	SPHWAHDND25YZV3D1				
	3500	MacAdam 2step	SPHWAHDND25YZU2H6	1725	138		
		MacAdam 3step	SPHWAHDND25YZU3H6				
		MacAdam 2step	SPHWAHDND25YZU2D1	1812	145		
		MacAdam 3step	SPHWAHDND25YZU3D1				
	4000	MacAdam 2step	SPHWAHDND25YZT2H6	1757	141		
		MacAdam 3step	SPHWAHDND25YZT3H6				
		MacAdam 2step	SPHWAHDND25YZT2D1	1844	148		
		MacAdam 3step	SPHWAHDND25YZT3D1				
	5000	MacAdam 3step	SPHWAHDND25YZR3H6	1772	142		
			SPHWAHDND25YZR3D1	1861	149		
	5700	MacAdam 3step	SPHWAHDND25YZQ3H6	1772	142		
			SPHWAHDND25YZQ3D1	1861	149		
6500	MacAdam 3step	SPHWAHDND25YZP3H6	1746	140			
		SPHWAHDND25YZP3D1	1834	147			
90+	2700	MacAdam 2step	SPHWAHDND27YZW2H2	1359	109		
		MacAdam 3step	SPHWAHDND27YZW3H2				
		MacAdam 2step	SPHWAHDND27YZW2D1	1427	115		
		MacAdam 3step	SPHWAHDND27YZW3D2				
	3000	MacAdam 2step	SPHWAHDND27YZV2H3	1423	114		
		MacAdam 3step	SPHWAHDND27YZV3H3				
		MacAdam 2step	SPHWAHDND27YZV2D1	1494	120		
		MacAdam 3step	SPHWAHDND27YZV3D1				
	3500	MacAdam 2step	SPHWAHDND27YZU2H4	1473	118		
		MacAdam 3step	SPHWAHDND27YZU3H4				
		MacAdam 2step	SPHWAHDND27YZU2D1	1547	124		
		MacAdam 3step	SPHWAHDND27YZU3D1				
4000	MacAdam 2step	SPHWAHDND27YZT2H4	1505	121			
	MacAdam 3step	SPHWAHDND27YZT3H4					
	MacAdam 2step	SPHWAHDND27YZT2D1	1580	127			
	MacAdam 3step	SPHWAHDND27YZT3D1					
5000	MacAdam 3step	SPHWAHDND27YZR3H4	1508	121			
		SPHWAHDND27YZR3D1	1584	127			

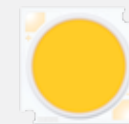


LC013D Gen 1

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC016D Gen 1	80+	2700	MacAdam 2step	SPHWAHDNE25YZW2H9	2065	133	450mA 34.6V
			MacAdam 3step	SPHWAHDNE25YZW3H9			
			MacAdam 2step	SPHWAHDNE25YZW2D1	2169	139	
			MacAdam 3step	SPHWAHDNE25YZW3D1			
	3000	MacAdam 2step	SPHWAHDNE25YZV2J0	2182	140		
		MacAdam 3step	SPHWAHDNE25YZV3J0				
		MacAdam 2step	SPHWAHDNE25YZV2D1	2291	147		
		MacAdam 3step	SPHWAHDNE25YZV3D1				
	3500	MacAdam 2step	SPHWAHDNE25YZU2J1	2263	145		
		MacAdam 3step	SPHWAHDNE25YZU3J1				
		MacAdam 2step	SPHWAHDNE25YZU2D1	2376	153		
		MacAdam 3step	SPHWAHDNE25YZU3D1				
	4000	MacAdam 2step	SPHWAHDNE25YZT2J1	2304	148		
		MacAdam 3step	SPHWAHDNE25YZT3J1				
		MacAdam 2step	SPHWAHDNE25YZT2D1	2419	155		
		MacAdam 3step	SPHWAHDNE25YZT3D1				
	5000	MacAdam 3step	SPHWAHDNE25YZR3J2	2324	149		
			SPHWAHDNE25YZR3D1	2440	157		
	5700	MacAdam 3step	SPHWAHDNE25YZQ3J2	2324	149		
			SPHWAHDNE25YZQ3D1	2440	157		
6500	MacAdam 3step	SPHWAHDNE25YZP3J1	2304	148			
		SPHWAHDNE25YZP3D1	2419	155			
90+	2700	MacAdam 2step	SPHWAHDNE27YZW2H6	1771	114		
		MacAdam 3step	SPHWAHDNE27YZW3H6				
		MacAdam 2step	SPHWAHDNE27YZW2D1	1860	119		
		MacAdam 3step	SPHWAHDNE27YZW3D1				
	3000	MacAdam 2step	SPHWAHDNE27YZV2H7	1877	121		
		MacAdam 3step	SPHWAHDNE27YZV3H7				
		MacAdam 2step	SPHWAHDNE27YZV2D1	1970	127		
		MacAdam 3step	SPHWAHDNE27YZV3D1				
	3500	MacAdam 2step	SPHWAHDNE27YZU2H8	1932	124		
		MacAdam 3step	SPHWAHDNE27YZU3H8				
		MacAdam 2step	SPHWAHDNE27YZU2D1	2029	130		
		MacAdam 3step	SPHWAHDNE27YZU3D1				
4000	MacAdam 2step	SPHWAHDNE27YZT2H8	1971	127			
	MacAdam 3step	SPHWAHDNE27YZT3H8					
	MacAdam 2step	SPHWAHDNE27YZT2D1	2069	133			
	MacAdam 3step	SPHWAHDNE27YZT3D1					
5000	MacAdam 3step	SPHWAHDNE27YZR3H8	1989	128			
		SPHWAHDNE27YZR3D1	2089	134			



LC016D Gen 1

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC019D Gen 1	2700	80+	MacAdam 2step	SPHWAHDNF25YZW2J3	2458	132	540mA 34.6V
			MacAdam 3step	SPHWAHDNF25YZW3J3			
			MacAdam 2step	SPHWAHDNF25YZW2D1	2581	138	
			MacAdam 3step	SPHWAHDNF25YZW3D1			
	3000	80+	MacAdam 2step	SPHWAHDNF25YZV24	2592	139	
			MacAdam 3step	SPHWAHDNF25YZV3J4			
			MacAdam 2step	SPHWAHDNF25YZV2D1	2722	146	
			MacAdam 3step	SPHWAHDNF25YZV3D1			
	3500	80+	MacAdam 2step	SPHWAHDNF25YZU25	2672	143	
			MacAdam 3step	SPHWAHDNF25YZU3J5			
			MacAdam 2step	SPHWAHDNF25YZU2D1	2805	150	
			MacAdam 3step	SPHWAHDNF25YZU3D1			
	4000	80+	MacAdam 2step	SPHWAHDNF25YZT25	2726	146	
			MacAdam 3step	SPHWAHDNF25YZT3J5			
			MacAdam 2step	SPHWAHDNF25YZT2D1	2863	153	
			MacAdam 3step	SPHWAHDNF25YZT3D1			
	5000	80+	MacAdam 3step	SPHWAHDNF25YZR3J6	2756	148	
			MacAdam 3step	SPHWAHDNF25YZR3D1	2894	155	
	5700	80+	MacAdam 3step	SPHWAHDNF25YZQ3J6	2756	148	
			MacAdam 3step	SPHWAHDNF25YZQ3D1	2894	155	
6500	80+	MacAdam 3step	SPHWAHDNF25YZP3J5	2726	146		
		MacAdam 3step	SPHWAHDNF25YZP3D1	2863	153		
LC019D Gen 1	2700	90+	MacAdam 2step	SPHWAHDNF27YZW2H9	2104	113	
			MacAdam 3step	SPHWAHDNF27YZW3H9			
			MacAdam 2step	SPHWAHDNF27YZW2D1	2210	118	
			MacAdam 3step	SPHWAHDNF27YZW3D1			
	3000	90+	MacAdam 2step	SPHWAHDNF27YZV2J0	2207	118	
			MacAdam 3step	SPHWAHDNF27YZV3J0			
			MacAdam 2step	SPHWAHDNF27YZV2D1	2317	124	
			MacAdam 3step	SPHWAHDNF27YZV3D1			
	3500	90+	MacAdam 2step	SPHWAHDNF27YZU2J1	2287	122	
			MacAdam 3step	SPHWAHDNF27YZU3J1			
			MacAdam 2step	SPHWAHDNF27YZU2D1	2402	129	
			MacAdam 3step	SPHWAHDNF27YZU3D1			
4000	90+	MacAdam 2step	SPHWAHDNF27YZT2J2	2337	125		
		MacAdam 3step	SPHWAHDNF27YZT3J2				
		MacAdam 2step	SPHWAHDNF27YZT2D1	2454	131		
		MacAdam 3step	SPHWAHDNF27YZT3D1				
5000	90+	MacAdam 3step	SPHWAHDNF27YZR3J8	2339	125		
		MacAdam 3step	SPHWAHDNF27YZR3D1	2456	131		

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC026D Gen 1	2700	80+	MacAdam 2step	SPHWAHDNG25YZW2K0	3225	129	720mA 34.6V
			MacAdam 3step	SPHWAHDNG25YZW3K0			
			MacAdam 2step	SPHWAHDNG25YZW2D1	3386	136	
			MacAdam 3step	SPHWAHDNG25YZW3D1			
	3000	80+	MacAdam 2step	SPHWAHDNG25YZV2K2	3389	136	
			MacAdam 3step	SPHWAHDNG25YZV3K2			
			MacAdam 2step	SPHWAHDNG25YZV2D1	3558	143	
			MacAdam 3step	SPHWAHDNG25YZV3D1			
	3500	80+	MacAdam 2step	SPHWAHDNG25YZU2K3	3488	140	
			MacAdam 3step	SPHWAHDNG25YZU3K3			
			MacAdam 2step	SPHWAHDNG25YZU2D1	3663	147	
			MacAdam 3step	SPHWAHDNG25YZU3D1			
	4000	80+	MacAdam 2step	SPHWAHDNG25YZT2K3	3558	143	
			MacAdam 3step	SPHWAHDNG25YZT3K3			
			MacAdam 2step	SPHWAHDNG25YZT2D1	3736	150	
			MacAdam 3step	SPHWAHDNG25YZT3D1			
	5000	80+	MacAdam 3step	SPHWAHDNG25YZR3K4	3588	144	
			MacAdam 3step	SPHWAHDNG25YZR3D1	3767	151	
	5700	80+	MacAdam 3step	SPHWAHDNG25YZQ3K4	3588	144	
			MacAdam 3step	SPHWAHDNG25YZQ3D1	3767	151	
6500	80+	MacAdam 3step	SPHWAHDNG25YZP3K3	3558	143		
		MacAdam 3step	SPHWAHDNG25YZP3D1	3736	150		
LC026D Gen 1	2700	90+	MacAdam 2step	SPHWAHDNG27YZW2J6	2760	111	
			MacAdam 3step	SPHWAHDNG27YZW3J6			
			MacAdam 2step	SPHWAHDNG27YZW2D1	2898	116	
			MacAdam 3step	SPHWAHDNG27YZW3D1			
	3000	90+	MacAdam 2step	SPHWAHDNG27YZV2J7	2903	117	
			MacAdam 3step	SPHWAHDNG27YZV3J7			
			MacAdam 2step	SPHWAHDNG27YZV2D1	3048	122	
			MacAdam 3step	SPHWAHDNG27YZV3D1			
	3500	90+	MacAdam 2step	SPHWAHDNG27YZU2J8	2990	120	
			MacAdam 3step	SPHWAHDNG27YZU3J8			
			MacAdam 2step	SPHWAHDNG27YZU2D1	3139	126	
			MacAdam 3step	SPHWAHDNG27YZU3D1			
4000	90+	MacAdam 2step	SPHWAHDNG27YZT2J8	3051	122		
		MacAdam 3step	SPHWAHDNG27YZT3J8				
		MacAdam 2step	SPHWAHDNG27YZT2D1	3204	129		
		MacAdam 3step	SPHWAHDNG27YZT3D1				
5000	90+	MacAdam 3step	SPHWAHDNG27YZR3J8	3077	124		
		MacAdam 3step	SPHWAHDNG27YZR3D1	3231	130		

Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
LC040D Gen 1	80+	2700	MacAdam 2step	SPHWAHDNK25YZW2M7	4996	134	1080mA 34.6V
			MacAdam 3step	SPHWAHDNK25YZW3M7			
			MacAdam 2step	SPHWAHDNK25YZW2D1	5246	140	
			MacAdam 3step	SPHWAHDNK25YZW3D1			
	3000	MacAdam 2step	SPHWAHDNK25YZV2M9	5257	141		
		MacAdam 3step	SPHWAHDNK25YZV3M9				
		MacAdam 2step	SPHWAHDNK25YZV2D1	5520	148		
		MacAdam 3step	SPHWAHDNK25YZV3D1				
	3500	MacAdam 2step	SPHWAHDNK25YZU2N1	5418	145		
		MacAdam 3step	SPHWAHDNK25YZU3N1				
		MacAdam 2step	SPHWAHDNK25YZU2D1	5689	152		
		MacAdam 3step	SPHWAHDNK25YZU3D1				
	4000	MacAdam 2step	SPHWAHDNK25YZT2N2	5535	148		
		MacAdam 3step	SPHWAHDNK25YZT3N2				
		MacAdam 2step	SPHWAHDNK25YZT2D1	5812	156		
		MacAdam 3step	SPHWAHDNK25YZT3D1				
	5000	MacAdam 3step	SPHWAHDNK25YZR3N2	5561	149		
			SPHWAHDNK25YZR3D1	5839	156		
	5700	MacAdam 3step	SPHWAHDNK25YZQ3N3	5588	150		
			SPHWAHDNK25YZQ3D1	5868	157		
	6500	MacAdam 3step	SPHWAHDNK25YZP3N2	5528	148		
			SPHWAHDNK25YZP3D1	5804	155		
	90+	2700	MacAdam 2step	SPHWAHDNK27YZW2M0	4283	115	
			MacAdam 3step	SPHWAHDNK27YZW3M0			
MacAdam 2step			SPHWAHDNK27YZW2D1	4497	120		
MacAdam 3step			SPHWAHDNK27YZW3D1				
3000		MacAdam 2step	SPHWAHDNK27YZV2M2	4525	121		
		MacAdam 3step	SPHWAHDNK27YZV3M2				
		MacAdam 2step	SPHWAHDNK27YZV2D1	4751	127		
		MacAdam 3step	SPHWAHDNK27YZV3D1				
3500		MacAdam 2step	SPHWAHDNK27YZU2M4	4640	124		
		MacAdam 3step	SPHWAHDNK27YZU3M4				
		MacAdam 2step	SPHWAHDNK27YZU2D1	4872	130		
		MacAdam 3step	SPHWAHDNK27YZU3D1				
4000	MacAdam 2step	SPHWAHDNK27YZT2M5	4742	127			
	MacAdam 3step	SPHWAHDNK27YZT3M5					
	MacAdam 2step	SPHWAHDNK27YZT2D1	4979	133			
	MacAdam 3step	SPHWAHDNK27YZT3D1					
5000	MacAdam 3step	SPHWAHDNK27YZR3M5	4796	128			
		SPHWAHDNK27YZR3D1	5036	135			

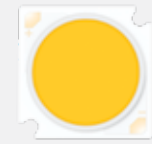


LC040D Gen 1

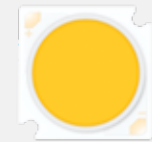
Chip-on-Board LEDs

Package

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC060D Gen 1	70+	3000	MacAdam 3step	SPHWAHDNL231ZV3Q8	8284	148	1080mA 52.0V	
			MacAdam 3step	SPHWAHDNL231ZT3R1	8550	152		
		5000	MacAdam 3step	SPHWAHDNL231ZR3R2	8683	155		
			MacAdam 2step	SPHWAHDNL251ZW2P9	7277	130		
		2700	MacAdam 3step	SPHWAHDNL251ZW3P9	7667	137		
			MacAdam 2step	SPHWAHDNL251ZV2Q3	7667	137		
	80+	3000	MacAdam 3step	SPHWAHDNL251ZV3Q3	7904	141		
			MacAdam 2step	SPHWAHDNL251ZU2Q5	7904	141		
		3500	MacAdam 3step	SPHWAHDNL251ZU3Q5	8075	144		
			MacAdam 2step	SPHWAHDNL251ZT2Q6	8075	144		
		4000	MacAdam 3step	SPHWAHDNL251ZT3Q6	8113	144		
			MacAdam 2step	SPHWAHDNL251ZR3Q7	8113	144		
	70+	5000	MacAdam 3step	SPHWAHDNL251ZQ3Q7	8151	145		
			MacAdam 3step	SPHWAHDNL271ZP3Q6	8066	144		
			MacAdam 3step	SPHWAHDNM231ZV3U5	12084	143		
			MacAdam 3step	SPHWAHDNM231ZT3U9	12483	148		
			MacAdam 3step	SPHWAHDNM231ZR3V0	12673	150		
			MacAdam 2step	SPHWAHDNM251ZW2T1	10612	126		
		80+	2700	MacAdam 3step	SPHWAHDNM251ZW3T1	11201		133
				MacAdam 2step	SPHWAHDNM251ZV2T6	11201		133
			3000	MacAdam 3step	SPHWAHDNM251ZV3T6	11533		137
				MacAdam 2step	SPHWAHDNM251ZU2T9	11533		137
			3500	MacAdam 3step	SPHWAHDNM251ZU3T9	11780		140
				MacAdam 2step	SPHWAHDNM251ZT2U2	11780		140
90+	4000	MacAdam 3step	SPHWAHDNM251ZT3U2	11847	141			
		MacAdam 2step	SPHWAHDNM251ZR3U2	11847	141			
	5000	MacAdam 3step	SPHWAHDNM251ZQ3V0	11904	141			
		MacAdam 2step	SPHWAHDNM251ZP3V5	11723	139			
	5700	MacAdam 3step	SPHWAHDNM251ZQ3V0	11904	141			
		MacAdam 2step	SPHWAHDNM251ZP3V5	11723	139			



LC060D Gen 1



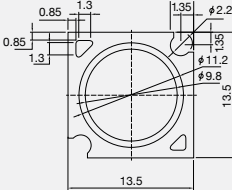
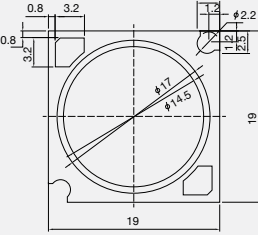
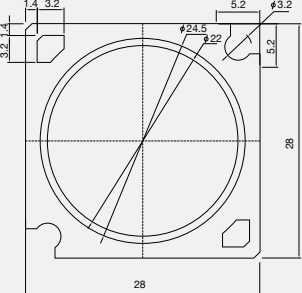


LC080D Gen 1







R-series Fashion

R-series Fashion spectrum pursues high contrast for retail shop



- Fashion Vivid Color: highlight all RGB colors
- Fashion Vivid White: below BBL, clear white

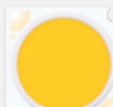


T _J =85°C	LC013R Fashion	LC016R Fashion	LC019R Fashion	LC026R Fashion	LC033R Fashion	LC040R Fashion
						
LES	9.8mm	14.5mm			22mm	
Typical	12.5W	15.6W	18.7W	24.9W	31.1W	37.4W
	360mA	450mA	540mA	720mA	900mA	1080mA
Max.	34.5W	43.1W	51.8W	69.0W	86.2W	103.5W
	920mA	1150mA	1380mA	1840mA	2300mA	2760mA
Dimension						
Size	13.5mm x 13.5mm	19mm x 19mm			28mm x 28mm	

Vivid White

Product	CRI Min.	CCT(K)	Color Rank	Part Number	T _J =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC013R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZVND2	1435	115	360mA 34.6V
		3500 (Below BBL)	MacAdam 3step	SPHWAHDND27YZUND2	1494	120	
		4000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZTND2	1541	124	
 LC016R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZVND2	1837	118	450mA 34.6V
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZUND2	1912	123	
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZTND2	1972	127	
 LC019R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZVND2	2195	117	540mA 34.6V
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZUND2	2284	122	
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZTND2	2355	126	
 LC026R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZVND2	2917	117	720mA 34.6V
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZUND2	3036	122	
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZTND2	3131	126	
 LC033R Fashion Vivid White"	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZVND2	3589	115	900mA 34.6V
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZUND2	3735	120	
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZTND2	3852	124	
 LC040R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZVND2	4428	118	1080mA 34.6V
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZUND2	4591	123	
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZTND2	4745	127	

Vivid Color

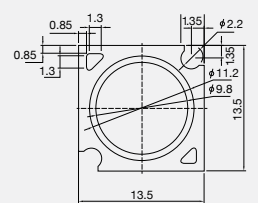
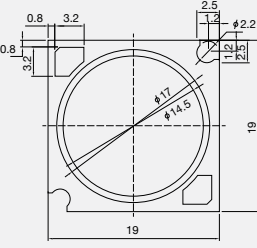
Product	CCT(K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
				Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC013R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWWAHDND2VYZV2D2	1334	107	360mA 34.6V
		MacAdam 3step	SPHWWAHDND2VYZVVD2			
	3300 (Below BBL)	MacAdam 2step	SPHWWAHDND2VYZA2D2	1394	112	
		MacAdam 3step	SPHWWAHDND2VYZAVD2			
	3500 (Below BBL)	MacAdam 2step	SPHWWAHDND2VYZU2D2	1433	115	
		MacAdam 3step	SPHWWAHDND2VYZUVD2			
4000 (Below BBL)	MacAdam 2step	SPHWWAHDND2VYZT2D2	1533	123		
	MacAdam 3step	SPHWWAHDND2VYZTVD2				
 LC016R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWWAHDNE2VYZV2D2	1745	112	450mA 34.6V
		MacAdam 3step	SPHWWAHDNE2VYZVVD2			
	3300 (Below BBL)	MacAdam 2step	SPHWWAHDNE2VYZA2D2	1823	117	
		MacAdam 3step	SPHWWAHDNE2VYZAVD2			
	3500 (Below BBL)	MacAdam 2step	SPHWWAHDNE2VYZU2D2	1875	120	
		MacAdam 3step	SPHWWAHDNE2VYZUVD2			
4000 (Below BBL)	MacAdam 2step	SPHWWAHDNE2VYZT2D2	2005	129		
	MacAdam 3step	SPHWWAHDNE2VYZTVD2				
 LC019R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWWAHDNF2VYZV2D2	2068	111	540mA 34.6V
		MacAdam 3step	SPHWWAHDNF2VYZVVD2			
	3300 (Below BBL)	MacAdam 2step	SPHWWAHDNF2VYZA2D2	2160	116	
		MacAdam 3step	SPHWWAHDNF2VYZAVD2			
	3500 (Below BBL)	MacAdam 2step	SPHWWAHDNF2VYZU2D2	2222	119	
		MacAdam 3step	SPHWWAHDNF2VYZUVD2			
4000 (Below BBL)	MacAdam 2step	SPHWWAHDNF2VYZT2D2	2376	127		
	MacAdam 3step	SPHWWAHDNF2VYZTVD2				

Product	CCT(K)	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
				Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC026R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWWAHDNG2VYZV2D2	2706	109	720mA 34.6V
		MacAdam 3step	SPHWWAHDNG2VYZVVD2			
	3300 (Below BBL)	MacAdam 2step	SPHWWAHDNG2VYZA2D2	2827	113	
		MacAdam 3step	SPHWWAHDNG2VYZAVD2			
	3500 (Below BBL)	MacAdam 2step	SPHWWAHDNG2VYZU2D2	2907	117	
		MacAdam 3step	SPHWWAHDNG2VYZUVD2			
4000 (Below BBL)	MacAdam 2step	SPHWWAHDNG2VYZT2D2	3108	125		
	MacAdam 3step	SPHWWAHDNG2VYZTVD2				
 LC033R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWWAHDNH2VYZV2D2	3339	107	900mA 34.6V
		MacAdam 3step	SPHWWAHDNH2VYZVVD2			
	3300 (Below BBL)	MacAdam 2step	SPHWWAHDNH2VYZA2D2	3488	112	
		MacAdam 3step	SPHWWAHDNH2VYZAVD2			
	3500 (Below BBL)	MacAdam 2step	SPHWWAHDNH2VYZU2D2	3588	115	
		MacAdam 3step	SPHWWAHDNH2VYZUVD2			
4000 (Below BBL)	MacAdam 2step	SPHWWAHDNH2VYZT2D2	3836	123		
	MacAdam 3step	SPHWWAHDNH2VYZTVD2				
 LC040R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWWAHDNK2VYZV2D2	4150	111	1080mA 34.6V
		MacAdam 3step	SPHWWAHDNK2VYZVVD2			
	3300 (Below BBL)	MacAdam 2step	SPHWWAHDNK2VYZA2D2	4335	116	
		MacAdam 3step	SPHWWAHDNK2VYZAVD2			
	3500 (Below BBL)	MacAdam 2step	SPHWWAHDNK2VYZU2D2	4459	119	
		MacAdam 3step	SPHWWAHDNK2VYZUVD2			
4000 (Below BBL)	MacAdam 2step	SPHWWAHDNK2VYZT2D2	4768	128		
	MacAdam 3step	SPHWWAHDNK2VYZTVD2				

R-series Meat

Special spectrum enhanced vividness for Meat

- Red saturated color, Fresh(Red), Delicious(Red), Vividness


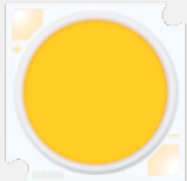
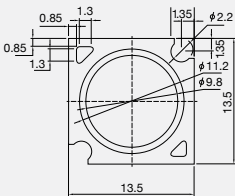
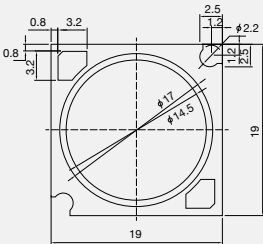
T _j =85°C	LC013R Meat	LC016R Meat	LC019R Meat	LC026R Meat	LC033R Meat
LES	9.8mm	14.5mm			
Typical	12.5W	15.6W	18.7W	24.9W	31.1W
	360mA	450mA	540mA	720mA	900mA
Max.	34.5W	43.1W	51.8W	69.0W	86.2W
	920mA	1150mA	1380mA	1840mA	2300mA
Dimension					
Size	13.5mm x 13.5mm	19mm x 19mm			


Product	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC013R Meat	MacAdam 2step	SPHWAHDND2VYZTSD2	914	73	360mA 34.6V
 LC016R Meat	MacAdam 2step	SPHWAHDNE2VYZTSD2	1188	76	450mA 34.6V
 LC019R Meat	MacAdam 2step	SPHWAHDNF2VYZTSD2	1412	76	540mA 34.6V
 LC026R Meat	MacAdam 2step	SPHWAHDNG2VYZTSD2	1845	74	720mA 34.6V
 LC033R Meat	MacAdam 2step	SPHWAHDNH2VYZTSD2	2284	73	900mA 34.6V

R-series Vegetable

Special spectrum enhanced vividness for Vegetable

- Green & Red saturated color, Fresh, Delicious, Vividness


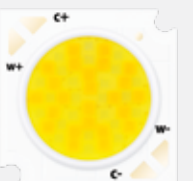

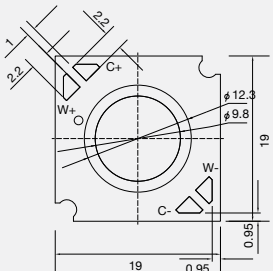
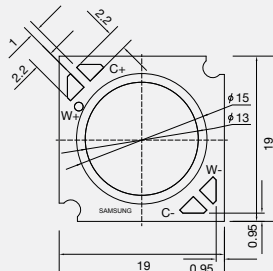
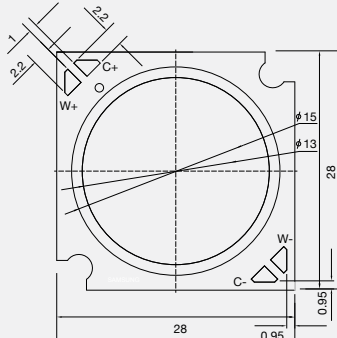
T _j =85°C	LC013R Vegetable	LC016R Vegetable	LC019R Vegetable	LC026R Vegetable	LC033R Vegetable
					
LES	9.8mm	14.5mm			
Typical	12.5W	15.6W	18.7W	24.9W	31.1W
	360mA	450mA	540mA	720mA	900mA
Max.	34.5W	43.1W	51.8W	69.0W	86.2W
	920mA	1150mA	1380mA	1840mA	2300mA
Dimension					
Size	13.5mm x 13.5mm	19mm x 19mm			


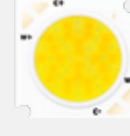

Product	Color Rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC013R Vegetable	MacAdam 2step	SPHWAHDND2VYZRSD2	1188	95	360mA 34.6V
 LC016R Vegetable	MacAdam 2step	SPHWAHDNE2VYZRSD2	1544	99	450mA 34.6V
 LC019R Vegetable	MacAdam 2step	SPHWAHDNF2VYZRSD2	1835	98	540mA 34.6V
 LC026R Vegetable	MacAdam 2step	SPHWAHDNG2VYZRSD2	2399	96	720mA 34.6V
 LC033R Vegetable	MacAdam 2step	SPHWAHDNH2VYZRSD2	2969	95	900mA 34.6V

T-series

Wide CCT tuning (2700K~6500K) through 2-channel (warm & cool white) current driving

- High efficacy for Tunable COB (140lm/W @CRI80, 6500K)
- Excellent color uniformity with concentric chip arrangement




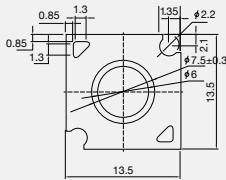
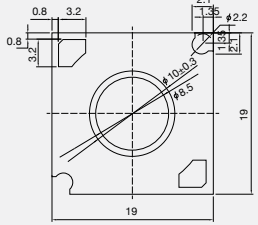
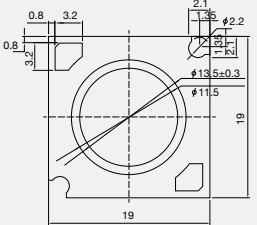
T _J =85°C	LC010T	LC020T	LC035T
			
LES	9.8mm	13mm	22mm
Typical	9.8W	19.6W	34.3W
	280mA	560mA	980mA
Max.	15W	30W	45W
	400mA	800mA	1250mA
Dimension			
Size	19mm x 19mm		28mm x 28mm



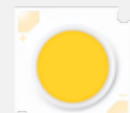

Product	CRI	CCT (K)	Color Rank	Part Number	T _J =85°C		I _F (mA)	V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
 LC010T	80+	2700	MacAdam 3step	SPHWAHDNC25YZWPT1	1190	120	280mA	35.0V
		6500	MacAdam 5step		1352	136		
	90+	2700	MacAdam 3step	SPHWAHDNC27YZWPT1	988	99		
		5000	MacAdam 5step		1149	116		
 LC020T	80+	2700	MacAdam 3step	SPHWAHDNF25YZWPT1	2355	118	560mA	35.0V
		6500	MacAdam 5step		2676	135		
	90+	2700	MacAdam 3step	SPHWAHDNF27YZWPT1	1956	98		
		5000	MacAdam 5step		2275	114		
 LC035T	80+	2700	MacAdam 3step	SPHWAHDNH25YZWPT1	4405	127	980mA	35.0V
		6500	MacAdam 5step		5006	144		
	90+	2700	MacAdam 3step	SPHWAHDNH27YZWPT1	3660	105		
		5000	MacAdam 5step		4255	122		

C Series Gen 2 [Small LES COB]

Suitable for narrow beam spot lights and downlights

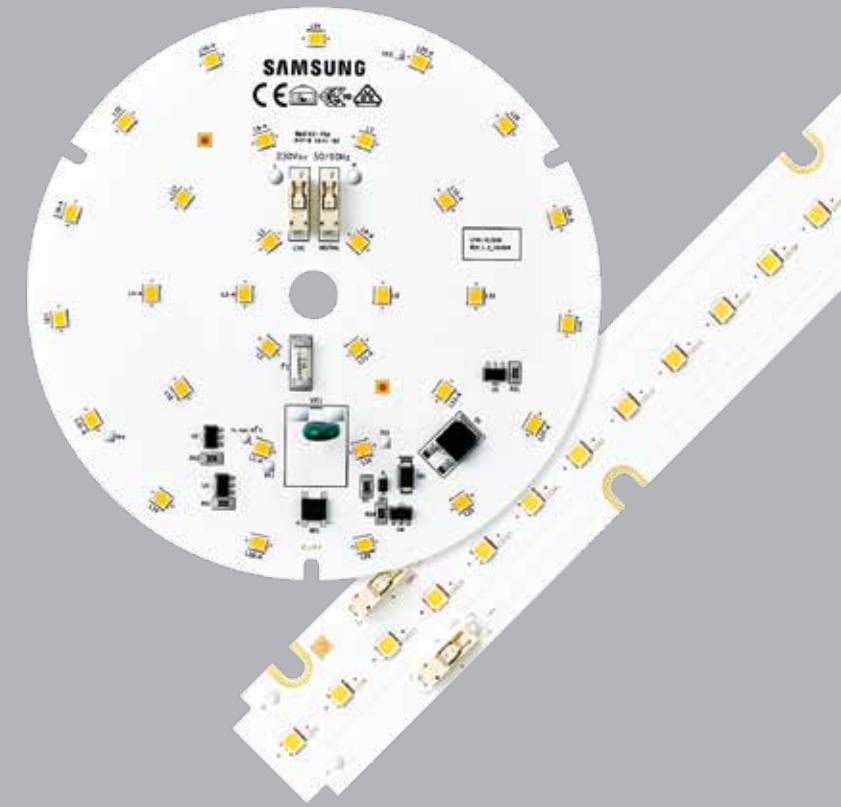
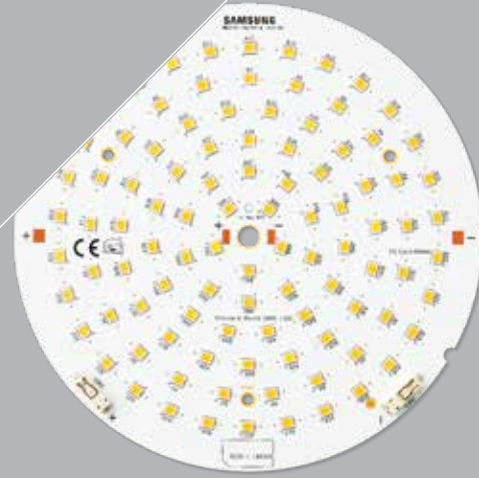
- Uses new flip-chip technology
- Low droop to improve current and thermal performance
- High reliability
- Completed 6,000 hours of LM-80 testing

T _j =85°C	LC010C Gen 2	LC020C Gen 2	LC030C Gen 2	LC040C Gen 2
				
LES	6.0mm	8.5mm	11.5mm	
Typical	10.5W (300mA)	21.0W (600mA)	31.5W (900mA)	36.8W (1050mA)
Max.	13.8W (380mA)	34.0W (920mA)	51.1W (1380mA)	59.5W (1610mA)
Dimension				
Size	13.5mm x 13.5mm	19mm x 19mm	19mm x 19mm	

Product	CRI	CCT (K)	Color rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
	80+	2700	MacAdam 3step	SPHWAHDNC25YZW3C2	1212	115	300mA 35.0V
		3000	MacAdam 3step	SPHWAHDNC25YZV3C2	1274	121	
		3500	MacAdam 3step	SPHWAHDNC25YZU3C2	1311	125	
		4000	MacAdam 3step	SPHWAHDNC25YZT3C2	1337	127	
		5000	MacAdam 3step	SPHWAHDNC25YZR3C2	1348	128	
		2700	MacAdam 3step	SPHWAHDNC27YZW3C2	1037	99	
		3000	MacAdam 3step	SPHWAHDNC27YZV3C2	1091	104	
		3500	MacAdam 3step	SPHWAHDNC27YZU3C2	1123	107	
		4000	MacAdam 3step	SPHWAHDNC27YZT3C2	1147	109	
		5000	MacAdam 3step	SPHWAHDNC27YZR3C2	1156	110	
	80+	2700	MacAdam 3step	SPHWAHDNF25YZW3C2	2485	118	600mA 35.0V
		3000	MacAdam 3step	SPHWAHDNF25YZV3C2	2625	125	
		3500	MacAdam 3step	SPHWAHDNF25YZU3C2	2688	128	
		4000	MacAdam 3step	SPHWAHDNF25YZT3C2	2742	131	
		5000	MacAdam 3step	SPHWAHDNF25YZR3C2	2765	132	
		2700	MacAdam 3step	SPHWAHDNF27YZW3C2	2127	101	
		3000	MacAdam 3step	SPHWAHDNF27YZV3C2	2237	107	
		3500	MacAdam 3step	SPHWAHDNF27YZU3C2	2304	110	
		4000	MacAdam 3step	SPHWAHDNF27YZT3C2	2351	112	
		5000	MacAdam 3step	SPHWAHDNF27YZR3C2	2372	113	
	80+	2700	MacAdam 3step	SPHWAHDNH25YZW3C2	3765	120	900mA 35.0V
		3000	MacAdam 3step	SPHWAHDNH25YZV3C2	3956	126	
		3500	MacAdam 3step	SPHWAHDNH25YZU3C2	4072	129	
		4000	MacAdam 3step	SPHWAHDNH25YZT3C2	4154	132	
		5000	MacAdam 3step	SPHWAHDNH25YZR3C2	4188	133	
		2700	MacAdam 3step	SPHWAHDNH27YZW3C2	3222	102	
		3000	MacAdam 3step	SPHWAHDNH27YZV3C2	3389	108	
		3500	MacAdam 3step	SPHWAHDNH27YZU3C2	3490	111	
		4000	MacAdam 3step	SPHWAHDNH27YZT3C2	3562	113	
		5000	MacAdam 3step	SPHWAHDNH27YZR3C2	3592	114	
	80+	2700	MacAdam 3step	SPHWAHDNK25YZW3C2	4305	117	1050mA 35.0V
		3000	MacAdam 3step	SPHWAHDNK25YZV3C2	4524	123	
		3500	MacAdam 3step	SPHWAHDNK25YZU3C2	4657	127	
		4000	MacAdam 3step	SPHWAHDNK25YZT3C2	4750	129	
		5000	MacAdam 3step	SPHWAHDNK25YZR3C2	4790	130	
		2700	MacAdam 3step	SPHWAHDNK27YZW3C2	3684	100	
		3000	MacAdam 3step	SPHWAHDNK27YZV3C2	3875	105	
		3500	MacAdam 3step	SPHWAHDNK27YZU3C2	3991	109	
		4000	MacAdam 3step	SPHWAHDNK27YZT3C2	4073	111	
		5000	MacAdam 3step	SPHWAHDNK27YZR3C2	4108	112	

Module

Samsung LED

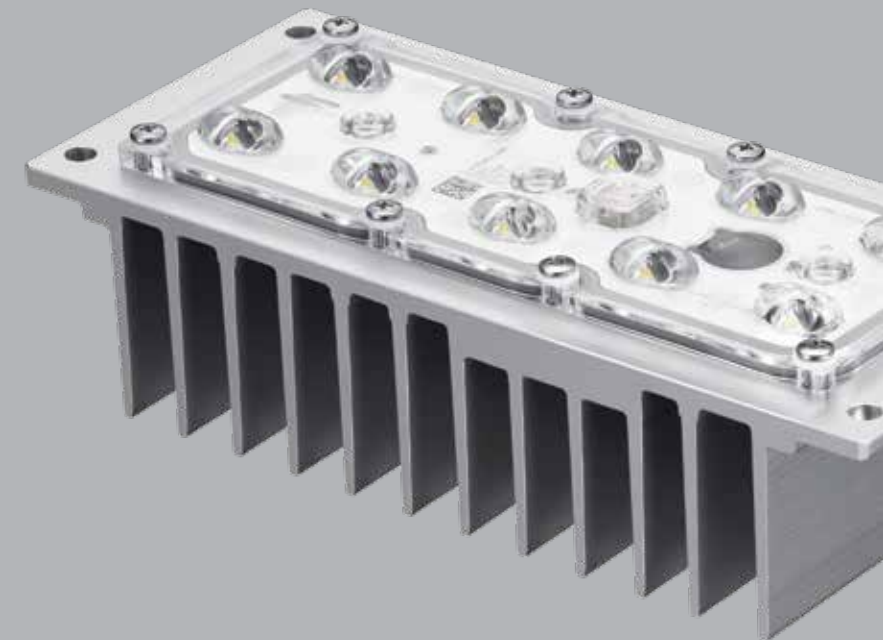


Ambient Light

Industrial Light

Down Light

Outdoor Light





With their modular construction, easy-to-use connections and optimal color consistency, Samsung's linear module line-ups are well-suited for a wide variety of luminaires.

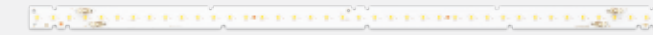
- Tight color binning for best color consistency and high uniformity
- Modular design flexibility makes a wide variety of luminaire designs possible
- Peace of mind with Samsung-backed quality and performance

Product	Key Features	Efficacy (lm/W)	Lifespan
Linear Module (Q-series)	<ul style="list-style-type: none"> • Highest performance • 203lm/W [4000K, CRI 80+, Tp 40°C] • Lifetime: 50,000 hours, Beam angle: 115° 	●●●●●	●●●●●
Linear Module (H-series)	<ul style="list-style-type: none"> • High performance • 192lm/W [4000K, CRI 80+, Tp 40°C] • Lifetime: 50,000 hours, Beam angle: 115° 	●●●●○	●●●●○
Linear Module (M-series)	<ul style="list-style-type: none"> • Flexible design choices • High efficacy up to 165lm/W @4000K • Lifetime: 50,000 hours, Beam angle: 115° 	●●●○●	●●●○●
Linear Module (S-series)	<ul style="list-style-type: none"> • High voltage solution • 180lm/W [4000K, CRI 80+, Tp 50°C] • Lifetime: 50,000 hours, Beam angle: 115° 	●●●○●	●●●○●
Linear Module (V-series)	<ul style="list-style-type: none"> • Value solution • 173lm/W [4000K, CRI80+, Tp 50°C] • Lifetime: 50,000 hours, Beam angle: 115° 	●●●○●	●●●○●
Linear Module (T-series)	<ul style="list-style-type: none"> • White tunable solution with color temperatures from 2700K to 6500K • Lifetime: 50,000 hours, Beam angle: 115° 	●●○●○	●●○●○

Linear Module (Q-series)



LM18x1120mm 4000lm (LT-QB22A)



LM18x560mm 2000lm (LT-Q562A)

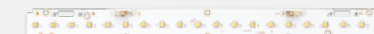


LM18x280mm 1000lm (LT-Q282A)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM18x1120mm 4000lm 830 80LED G1 (LT-QB22A)	3680					187		3000				SI-B8V201B20US
LM18x1120mm 4000lm 835 80LED G1 (LT-QB22A)	3900					198		3500				SI-B8U201B20US
LM18x1120mm 4000lm 840 80LED G1 (LT-QB22A)	4000	19.7	43.8	450	900	203	80+	4000	1120x18x5.2	-20~+50	cUL, UL	SI-B8T201B20US
LM18x1120mm 4000lm 850 80LED G1 (LT-QB22A)	4100					208		5000				SI-B8R201B20US
LM18x560mm 2000lm 830 40LED G1 (LT-Q562A)	1840					187		3000				SI-B8V101560US
LM18x560mm 2000lm 835 40LED G1 (LT-Q562A)	1950					198		3500				SI-B8U101560US
LM18x560mm 2000lm 840 40LED G1 (LT-Q562A)	2000	9.9	21.9	450	900	203	80+	4000	560x18x5.8	-20~+50	cUL, UL	SI-B8T101560US
LM18x560mm 2000lm 850 40LED G1 (LT-Q562A)	2050					208		5000				SI-B8R101560US
LM18x280mm 1000lm 830 20LED G1 (LT-Q282A)	920					187		3000				SI-B8V051280US
LM18x280mm 1000lm 835 20LED G1 (LT-Q282A)	975					198		3500				SI-B8U051280US
LM18x280mm 1000lm 840 20LED G1 (LT-Q282A)	1000	4.9	10.9	450	900	203	80+	4000	275x18x5.8	-20~+50	cUL, UL	SI-B8T051280US
LM18x280mm 1000lm 850 20LED G1 (LT-Q282A)	1025					208		5000				SI-B8R051280US



LM24x560mm 2000lm (LT-Q562B)



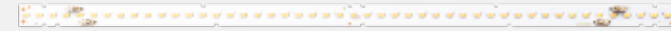
LM24x280mm 1000lm (LT-Q282B)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM24x560mm 2000lm 830 40LED G1 (LT-Q562B)	1840					187		3000				SI-B8V103560EU
LM24x560mm 2000lm 840 40LED G1 (LT-Q562B)	2000	9.9	54.8	180	360	203	80+	4000	560x24x5.2	-20~+50	CE, ENEC	SI-B8T103560EU
LM24x560mm 2000lm 865 40LED G1 (LT-Q562B)	2000					203		6500				SI-B8P103560EU
LM24x280mm 1000lm 830 20LED G1 (LT-Q282B)	920					187		3000				SI-B8V053280EU
LM24x280mm 1000lm 840 20LED G1 (LT-Q282B)	1000	4.9	27.4	180	360	203	80+	4000	280x24x5.2	-20~+50	CE, ENEC	SI-B8T053280EU
LM24x280mm 1000lm 865 20LED G1 (LT-Q282B)	1000					203		6500				SI-B8P053280EU

Linear Module (H-series)



LM18x1120mm 4000lm (LT-HB22D)

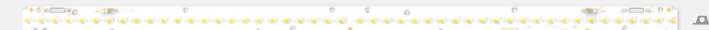


LM18x560mm 2000lm (LT-H562D)



LM18x280mm 1000lm (LT-H282D)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM18x1120mm 4000lm 830 96LED G3 (LT-HB22D)	3980					184		3000				SI-B8V221B2HUS
LM18x1120mm 4000lm 835 96LED G3 (LT-HB22D)	4035					187		3500				SI-B8U221B2HUS
LM18x1120mm 4000lm 840 96LED G3 (LT-HB22D)	4150	21.6	22.5	960	2400	192	80+	4000	1120x18x5.8	-20~+50	cUL, UL	SI-B8T221B2HUS
LM18x1120mm 4000lm 850 96LED G3 (LT-HB22D)	4040					187		5000				SI-B8R221B2HUS
LM18x560mm 2000lm 830 48LED G3 (LT-H562D)	1990					184		3000				SI-B8V11156HUS
LM18x560mm 2000lm 835 48LED G3 (LT-H562D)	2020					187		3500				SI-B8U11156HUS
LM18x560mm 2000lm 840 48LED G3 (LT-H562D)	2075	10.8	22.5	480	1200	192	80+	4000	560x18x5.8	-20~+50	cUL, UL	SI-B8T11156HUS
LM18x560mm 2000lm 850 48LED G3 (LT-H562D)	2020					187		5000				SI-B8R11156HUS
LM18x280mm 1000lm 830 24LED G3 (LT-H282D)	1000					184		3000				SI-B8V05128HUS
LM18x280mm 1000lm 835 24LED G3 (LT-H282D)	1010					187		3500				SI-B8U05128HUS
LM18x280mm 1000lm 840 24LED G3 (LT-H282D)	1040	5.4	22.5	240	600	192	80+	4000	275x18x5.8	-20~+50	cUL, UL	SI-B8T05128HUS
LM18x280mm 1000lm 850 24LED G3 (LT-H282D)	1010					187		5000				SI-B8R05128HUS



LM24x560mm 2000lm (LT-H562C)



LM24x560mm 2000lm (LT-H562C)



LM24x280mm 1000lm (LT-H282C)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM24x560mm 2000lm 830 48LED G3 (LT-H562C)	1990					184		3000				SI-B8V11156HEU SI-B8V11256HEU
LM24x560mm 2000lm 840 48LED G3 (LT-H562C)	2075	10.8	45	240	600	192	80+	4000	559.7x23.8x5.2 559.7x23.8x7.4	-20~+50	CE, ENEC	SI-B8T11156HEU SI-B8T11256HEU
LM24x560mm 2000lm 865 48LED G3 (LT-H562C)	2075					192		6500				SI-B8P11156HEU SI-B8P11256HEU
LM24x280mm 1000lm 830 24LED G3 (LT-H282C)	1000					184		3000				SI-B8V05128HEU SI-B8V05228HEU
LM24x280mm 1000lm 840 24LED G3 (LT-H282C)	1040	5.4	22.5	240	600	192	80+	4000	279.7x23.8x5.2 279.7x23.8x7.4	-20~+50	CE, ENEC	SI-B8T05128HEU SI-B8T05228HEU
LM24x280mm 1000lm 865 24LED G3 (LT-H282C)	1040					192		6500				SI-B8P05128HEU SI-B8P05228HEU

* Front wiring connector, Rear wiring connector

Linear Module (M-series)



LM18x1120mm 5500lm (LT-MB22C Gen 3)



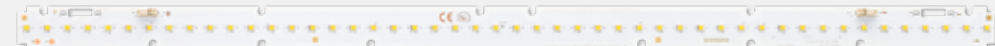
LM18x560mm 2800lm (LT-M562C Gen 3)



LM18x280mm 1800lm (LT-M282C Gen 3)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM18x1120mm 5500lm 830 96LED G3 (LT-MB22C Gen 3)	5330	33.6	24	1400	2160	159	80+	3000	1120x18x5.2	-20~+50	cUL, UL	SI-B8V341B2001
LM18x1120mm 5500lm 835 96LED G3 (LT-MB22C Gen 3)	5400					161		3500				SI-B8U341B2001
LM18x1120mm 5500lm 840 96LED G3 (LT-MB22C Gen 3)	5550					165		4000				SI-B8T341B2001
LM18x1120mm 5500lm 850 96LED G3 (LT-MB22C Gen 3)	5550					165		5000				SI-B8R341B2001
LM18x560mm 2800lm 830 48LED G3 (LT-M562C Gen 3)	2665	16.8	24	700	1080	159	80+	3000	560x18x5.8	-20~+50	cUL, UL	SI-B8V17256001
LM18x560mm 2800lm 835 48LED G3 (LT-M562C Gen 3)	2700					161		3500				SI-B8U17256001
LM18x560mm 2800lm 840 48LED G3 (LT-M562C Gen 3)	2775					165		4000				SI-B8T17256001
LM18x560mm 2800lm 850 48LED G3 (LT-M562C Gen 3)	2775					165		5000				SI-B8R17256001
LM18x280mm 1800lm 830 24LED G3 (LT-M282C Gen 3)	1660	11.2	24.8	450	540	149	80+	3000	275x18x5.8	-20~+50	cUL, UL	SI-B8V11428001
LM18x280mm 1800lm 835 24LED G3 (LT-M282C Gen 3)	1680					151		3500				SI-B8U11428001
LM18x280mm 1800lm 840 24LED G3 (LT-M282C Gen 3)	1730					155		4000				SI-B8T11428001
LM18x280mm 1800lm 850 24LED G3 (LT-M282C Gen 3)	1730					155		5000				SI-B8R11428001

Linear Module (S-series Gen 3)



LM24x560mm 2200lm 830 48LED G3 (LT-S562V)



LM18x560mm 2800lm (LT-M562C Gen 3)



LM18x280mm 1800lm (LT-M282C Gen 3)



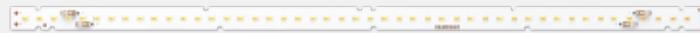
LM18x560mm 2800lm (LT-M562C Gen 3)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM24x560mm 2200lm 830 48LED G3 (LT-S562V)	2170	12.7	45.4	280	480	171	80+	3000	559.7x23.5x 5.5	-20~+50	CE	SI-B8V12A56SEU
LM24x560mm 2200lm 840 48LED G3 (LT-S562V)	2285					180		4000				SI-B8T12A56SEU
LM24x560mm 2200lm 865 48LED G3 (LT-S562V)	2285					180		6500				SI-B8P12A56SEU
LM24x280mm 1100lm 830 24LED G3 (LT-S282V)	1085					171		3000				SI-B8V06A28SEU
LM24x280mm 1100lm 840 24LED G3 (LT-S282V)	1145	6.4	22.7	280	480	180	80+	4000	279.7x23.5x 5.5	-20~+50	CE	SI-B8T06A28SEU
LM24x280mm 1100lm 865 24LED G3 (LT-S282V)	1145					180		6500				SI-B8P06A28SEU
LM24x560mm, 2200lm 930 48LED G3 (LT-S562V)	1845					145		3000				SI-B9V12A56SEU
LM24x560mm, 2200lm 940 48LED G3 (LT-S562V)	1940					153		90+				4000
LM24x560mm, 2200lm 965 48LED G3 (LT-S562V)	1940	153	6500	SI-B9P12A56SEU								
LM24x280mm 1100lm 930 24LED G3 (LT-S282V)	920	6.4	22.7	280	480	145	90+	3000	279.7x23.5x 5.5	-20~+50	CE	SI-B9V06A28SEU
LM24x280mm 1100lm 940 24LED G3 (LT-S282V)	975					153		4000				SI-B9T06A28SEU
LM24x280mm 1100lm 965 24LED G3 (LT-S282V)	975					153		6500				SI-B9P06A28SEU
LM24x560mm 1100lm 830 24LED G3 (LT-S562W)	1085					171		3000				SI-B8V06A56SEU
LM24x560mm 1100lm 840 24LED G3 (LT-S562W)	1145	6.4	22.7	280	480	180	80+	4000	559.7x23.5x 5.5	-20~+50	CE	SI-B8T06A56SEU
LM24x560mm 1100lm 865 24LED G3 (LT-S562W)	1145					180		6500				SI-B8P06A56SEU
LM24x280mm 550lm 830 12LED G3 (LT-S282W)	540					169		3000				SI-B8V03A28SEU
LM24x280mm 550lm 840 12LED G3 (LT-S282W)	570					3.2		11.4				280
LM24x280mm 550lm 865 12LED G3 (LT-S282W)	570	179	6500	SI-B8P03A28SEU								
LM24x560mm 1100lm 930 24LED G3 (LT-S562W)	920	145	3000	SI-B9V06A56SEU								
LM24x560mm 1100lm 940 24LED G3 (LT-S562W)	975	6.4	22.7	280	480		153		90+	4000	559.7x23.5x 5.5	
LM24x560mm 1100lm 965 24LED G3 (LT-S562W)	975					153	6500	SI-B9P06A56SEU				
LM24x280mm 550lm 930 12LED G3 (LT-S282W)	460					144	3000	SI-B9V03A28SEU				
LM24x280mm 550lm 940 12LED G3 (LT-S282W)	485					3.2	11.4	280		480		152
LM24x280mm 550lm 965 12LED G3 (LT-S282W)	485	152	6500	SI-B9P03A28SEU								

Linear Module (V-series)



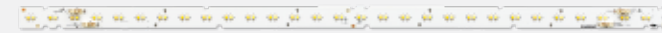
LM18x1120mm 5600lm (LT-VB22C)



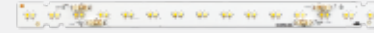
LM18x560mm 2800lm (LT-V562C)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM18x1120mm 5600lm 830 96LED G2 (LT-VB22C)	5360					165		3000				SI-B8V342B2CUS
LM18x1120mm 5600lm 835 96LED G2 (LT-VB22C)	5440					167		3500				SI-B8U342B2CUS
LM18x1120mm 5600lm 840 96LED G2 (LT-VB22C)	5620	32.5	46.4	700	900	173	80+	4000	1120x18x5.5	-30~+50	cUL, UL	SI-B8T342B2CUS
LM18x1120mm 5600lm 850 96LED G2 (LT-VB22C)	5690					175		5000				SI-B8R342B2CUS
LM18x560mm 2800lm 830 48LED G2 (LT-V562C)	2680					165		3000				SI-B8V17256CWW
LM18x560mm 2800lm 835 48LED G2 (LT-V562C)	2720					167		3500				SI-B8U17256CWW
LM18x560mm 2800lm 840 48LED G2 (LT-V562C)	2810	16.2	23.2	700	900	173	80+	4000	560x18x5.5	-30~+50	cUL, UL	SI-B8T17256CWW
LM18x560mm 2800lm 850 48LED G2 (LT-V562C)	2845					175		5000				SI-B8R17256CWW

Linear Module (T-series)



LM18x560mm 2000lm (LT-T562C)





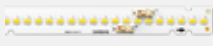
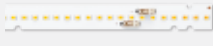
LM18x280mm 1000lm (LT-T282C)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
	1900	13.5	18.0 / 0	750 / 0		141		2700				
LM18x560mm 2000lm 827-65 30LED G1 (LT-T562C)	2075	12.6	16.7 / 16.7	375 / 375	-	165	80+	4000	560x18x5.5	-20~+50	cUL, UL	SI-B8A131560WW
	2060	13.5	0 / 18.0	0 / 750		153		6500				
	950	6.8	9.0 / 0	750 / 0		141		2700				
LM18x280mm 1000lm 827-65 15LED G1 (LT-T282C)	1040	6.3	8.4 / 8.4	375 / 375	-	165	80+	4000	275x18x5.5	-20~+50	cUL, UL	SI-B8A071280WW
	1030	6.8	0 / 9.0	0 / 750		153		6500				

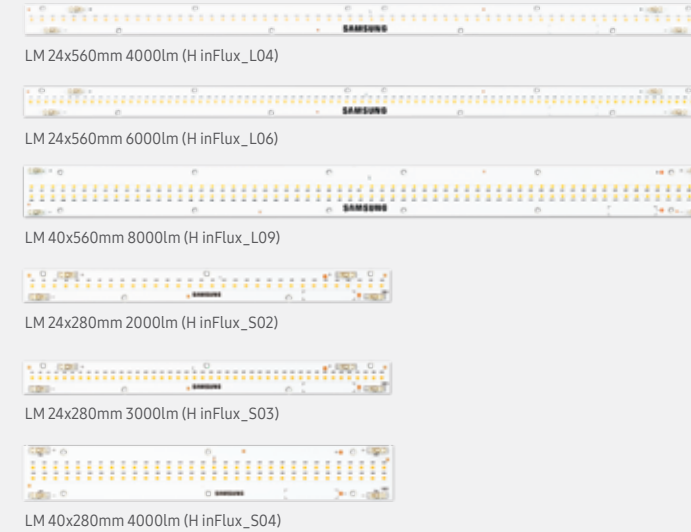


Superior performance for high flux luminaires in industrial lighting

- Optimized for industrial lighting applications
- Reduced thermal resistance using Samsung's high performing mid-power LEDs
- Better uniformity & cost effective

Product	Key Features	Efficacy (lm/W)	Lifespan
 Linear Module (H inFlux)	<ul style="list-style-type: none"> • Wide lumen flux coverage - up to 40,000lm by combining modules • Highest performance • 192lm/W [4000K, CRI 80+, Tp 55°C] • Lifetime: 50,000 hours, Beam angle: 120° 	●●●●●	●●●●●
 Linear Module (L inFlux)	<ul style="list-style-type: none"> • Value solution • 160lm/W [4000K, CRI 80+, Tp 65°C] • Lifetime: 50,000 hours, Beam angle: 118° 	●●●○○	●●●●○
 Linear Module (F-series)	<ul style="list-style-type: none"> • High lumen density of 18,600lm to replace tubes in high/low bay lighting • Platform & flexible design choices • High efficacy up to 175lm/W @4000K • Lifetime: 50,000 hours, Beam angle: 115° 	●●●●○	●●●●○
 Linear Module (V-series F-type)	<ul style="list-style-type: none"> • Value solution • 167lm/W [4000K, CRI80+, Tp 65°C] • Lifetime: 50,000 hours, Beam angle: 115° 	●●○○○	●●●○○

Linear Module (H inFlux)



Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM 24x560mm 4000lm 830 64LED G1 (H inFlux_L04)	3960					178		3000				SL-B8V2N80LAWW
LM 24x560mm 4000lm 835 64LED G1 (H inFlux_L04)	4060					182		3500			CE, cUL, UL	SL-B8U2N80LAWW
LM 24x560mm 4000lm 840 64LED G1 (H inFlux_L04)	4280	22.3	22.3	1000	1380	192	80+	4000	560x24x5.9	-40~+50		SL-B8T2N80LAWW
LM 24x560mm 4000lm 850 64LED G1 (H inFlux_L04)	4280					192		5000				SL-B8R2N80LAWW
LM 24x560mm 6000lm 830 88LED G1 (H inFlux_L06)	5630					176		3000				SL-B8V3N80LAWW
LM 24x560mm 6000lm 835 88LED G1 (H inFlux_L06)	5800					181		3500			CE, cUL, UL	SL-B8U3N80LAWW
LM 24x560mm 6000lm 840 88LED G1 (H inFlux_L06)	6110	32.0	22.4	1430	950	191	80+	4000	560x24x5.9	-40~+50		SL-B8T3N80LAWW
LM 24x560mm 6000lm 850 88LED G1 (H inFlux_L06)	6110					191		5000				SL-B8R3N80LAWW
LM 40x560mm 8000lm 830 128LED G1 (H inFlux_L09)	7910					177		3000				SL-B8V4N90LAWW
LM 40x560mm 8000lm 835 128LED G1 (H inFlux_L09)	8130					182		3500			CE, cUL, UL	SL-B8U4N90LAWW
LM 40x560mm 8000lm 840 128LED G1 (H inFlux_L09)	8570	44.6	44.6	1000	1380	192	80+	4000	561x41x5.9	-40~+50		SL-B8T4N90LAWW
LM 40x560mm 8000lm 850 128LED G1 (H inFlux_L09)	8570					192		5000				SL-B8R4N90LAWW
LM 24x280mm 2000lm 830 32LED G1 (H inFlux_S02)	1980					178		3000				SL-B8V1N30LAWW
LM 24x280mm 2000lm 835 32LED G1 (H inFlux_S02)	2030					183		3500			CE, cUL, UL	SL-B8U1N30LAWW
LM 24x280mm 2000lm 840 32LED G1 (H inFlux_S02)	2140	11.1	11.1	1000	1380	193	80+	4000	280x24x5.9	-40~+50		SL-B8T1N30LAWW
LM 24x280mm 2000lm 850 32LED G1 (H inFlux_S02)	2140					193		5000				SL-B8R1N30LAWW
LM 24x280mm 3000lm 830 44LED G1 (H inFlux_S03)	2820					176		3000				SL-B8V1N60LAWW
LM 24x280mm 3000lm 835 44LED G1 (H inFlux_S03)	2890					180		3500			CE, cUL, UL	SL-B8U1N60LAWW
LM 24x280mm 3000lm 840 44LED G1 (H inFlux_S03)	3060	16.0	11.2	1430	950	191	80+	4000	280x24x5.9	-40~+50		SL-B8T1N60LAWW
LM 24x280mm 3000lm 850 44LED G1 (H inFlux_S03)	3060					191		5000				SL-B8R1N60LAWW
LM 40x280mm 4000lm 830 64LED G1 (H inFlux_S04)	3960					178		3000				SL-B8V2N70LAWW
LM 40x280mm 4000lm 835 64LED G1 (H inFlux_S04)	4060					182		3500			CE, cUL, UL	SL-B8U2N70LAWW
LM 40x280mm 4000lm 840 64LED G1 (H inFlux_S04)	4280	22.3	22.3	1000	1380	192	80+	4000	281x41x5.9	-40~+50		SL-B8T2N70LAWW
LM 40x280mm 4000lm 850 64LED G1 (H inFlux_S04)	4280					192		5000				SL-B8R2N70LAWW

Linear Module (L inFlux)



LinFlux L09



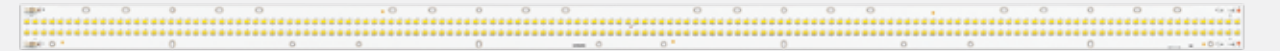
LinFlux S04

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LinFlux L09	8470	57.0	45.6	1250	1500	149	80+	3000	559.7x39.8x6	-20~+50	CE, cUL, UL	SI-B8V581560EU
	9030					158		4000				SI-B8T581560EU
LinFlux S04	4270	28.5	22.8	1250	1500	150	80+	3000	279.7x39.8x6	-20~+50	CE, cUL, UL	SI-B8V291280EU
	4550					160		4000				SI-B8T291280EU

Linear Module (F-series)



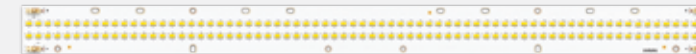
LM 18x1120mm 9000lm (LT-FB22B)



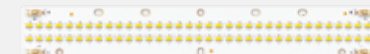
LM 40x1120mm 18000lm (LT-FB24B)



LM 18x560mm 4500lm (LT-F562B)



LM 40x560mm 9000lm (LT-F564B)



LM 40x280mm 4500lm (LT-F284B)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM 18x1120mm 9000lm 830 144LED G3 (LT-FB22B)	8670	51.5	46.0	1120	1800	168	80+	3000	1120x18x5.2	-30~+55	cUL, UL	SI-B8V521B20WW
LM 18x1120mm 9000lm 835 144LED G3 (LT-FB22B)	8800					171		3500				SI-B8U521B20WW
LM 18x1120mm 9000lm 840 144LED G3 (LT-FB22B)	9000					175		4000				SI-B8T521B20WW
LM 18x1120mm 9000lm 850 144LED G3 (LT-FB22B)	9300					181		5000				SI-B8R521B20WW
LM 40x1120mm 18000lm 830 288LED G3 (LT-FB24B)	17340	103.0	46.0	2240	3600	168	80+	3000	1120x39.8x5.2	-30~+55	cUL, UL	SI-B8V291B20WW
LM 40x1120mm 18000lm 835 288LED G3 (LT-FB24B)	17600					171		3500				SI-B8U291B20WW
LM 40x1120mm 18000lm 840 288LED G3 (LT-FB24B)	18000					175		4000				SI-B8T291B20WW
LM 40x1120mm 18000lm 850 288LED G3 (LT-FB24B)	18600					181		5000				SI-B8R291B20WW
LM 18x560mm 4500lm 830 72LED G3 (LT-F562B)	4335	25.8	23.0	1120	1800	168	80+	3000	560x18x5.2	-30~+55	cUL, UL	SI-B8V261560WW
LM 18x560mm 4500lm 835 72LED G3 (LT-F562B)	4400					171		3500				SI-B8U261560WW
LM 18x560mm 4500lm 840 72LED G3 (LT-F562B)	4500					175		4000				SI-B8T261560WW
LM 18x560mm 4500lm 850 72LED G3 (LT-F562B)	4650					181		5000				SI-B8R261560WW
LM 40x560mm 9000lm 830 144LED G3 (LT-F564B)	8670	51.5	46.0	1120	1800	168	80+	3000	559.7x39.8x5.2	-30~+55	cUL, UL	SI-B8V521560WW
LM 40x560mm 9000lm 835 144LED G3 (LT-F564B)	8800					171		3500				SI-B8U521560WW
LM 40x560mm 9000lm 840 144LED G3 (LT-F564B)	9000					175		4000				SI-B8T521560WW
LM 40x560mm 9000lm 850 144LED G3 (LT-F564B)	9300					181		5000				SI-B8R521560WW
LM 40x280mm 4500lm 830 72LED G3 (LT-F284B)	4335	25.8	23.0	1120	1800	168	80+	3000	280x40x5.2	-30~+55	cUL, UL	SI-B8V261280WW
LM 40x280mm 4500lm 835 72LED G3 (LT-F284B)	4400					171		3500				SI-B8U261280WW
LM 40x280mm 4500lm 840 72LED G3 (LT-F284B)	4500					175		4000				SI-B8T261280WW
LM 40x280mm 4500lm 850 72LED G3 (LT-F284B)	4650					181		5000				SI-B8R261280WW

Linear Module (V-series F-type)



LM 40x1120mm 9000lm 288LED G2 (LT-VB24F)



LM 18x1120mm 8500lm 144LED G2 (LT-VB22F)



LM 18x560mm 4000lm 72LED G2 (LT-V562F)






LM 40x560mm 8500lm 144LED G2 (LT-V564F)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	I _{max} (mA)	Efficacy (lm/W)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
LM 40x1120mm 9000lm 288LED G2 (LT-VB24F)	8350	47.5	44.0	1080	-	176	80+	3000	1120x39.8x5.2	-20~+50	cUL, UL	SI-B8V481B20US
	8620					181		3500				SI-B8U481B20US
	8950					188		4000				SI-B8T481B20US
	8740					184		5000				SI-B8R481B20US
LM 18x1120mm 8500lm 144LED G2 (LT-VB22F)	8300	52.1	46.5	1120	1350	159	80+	3000	1120x18x5.5	-30~+50	cUL, UL	SI-B8V522B2CUS
	8410					161		3500				SI-B8U522B2CUS
	8690					167		4000				SI-B8T522B2CUS
	8800					169		5000				SI-B8R522B2CUS
LM 18x560mm 4000lm 72LED G2 (LT-V562F)	4150	26.1	23.3	1120	1350	159	80+	3000	560x18x5.5	-30~+50	cUL, UL	SI-B8V26256CUS
	4205					161		3500				SI-B8U26256CUS
	4345					168		4000				SI-B8T26256CUS
	4400					169		5000				SI-B8R26256CUS
LM 40x560mm 8500lm 144LED G2 (LT-V564F)	8300	52.1	46.5	1120	1350	159	80+	3000	560x39.8x5.5	-30~+50	cUL, UL	SI-B8V52256CUS
	8410					161		3500				SI-B8U52256CUS
	8690					167		4000				SI-B8T52256CUS
	8800					169		5000				SI-B8R52256CUS

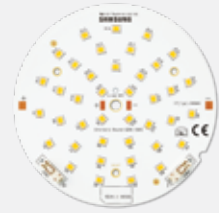


High efficacy modules that are ideal for use in downlights and spotlights

- High efficacy downlight modules with latest LED technology from Samsung
- Suitable for various applications including general flood light, spotlight, ceiling light, flushmount and fan light
- Best color consistency derived from Samsung's extensive binning expertise

Product	Key Features	Efficacy (lm/W)	Lifespan
 Circular Module (Round Gen 5)	<ul style="list-style-type: none"> • High luminous efficacy for reduced electricity costs • Possible to design 4-8inch downlight • Lifetime: 50,000 hours, Beam angle: 115° 	●●●●●	●●●●○
 Circular Engine (ACOM Round Gen 2)	<ul style="list-style-type: none"> • Easy installation (No external driver required) • Cost competitive with good lm/\$ • Lifetime: 50,000 hours, Beam angle: 115° 	●●●●○	●●●●○
 Circular Engine (T-24 ACOM)	<ul style="list-style-type: none"> • Flicker-free(%Flicker < 30%), Dimming to 10% brightness with good dimmer compatibility • Designed following CEC Title-24 standard • Lifetime: 50,000 hours, Beam angle: 115° 	●●●●○	●●●●○

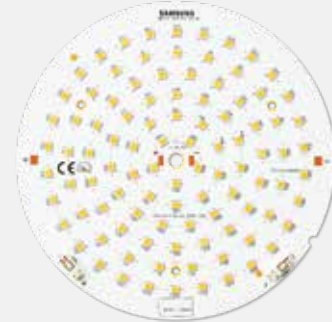
Circular Module (Round Gen 5)



CM 90mm 1200lm (Round-090)



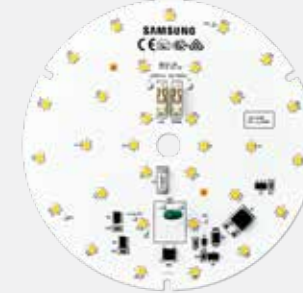
CM 110mm 2300lm (Round-110)



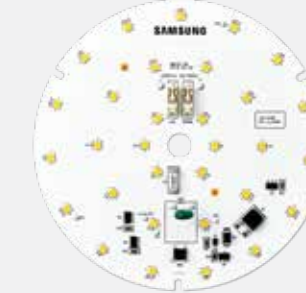
CM 130mm 3800lm (Round-130)

Type	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	Tp (°C)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
CM 90mm 1000lm 830 G5 (Round-090)	1190					178			3000				SI-N8V0754B0WW
CM 90mm 1000lm 835 G5 (Round-090)	1210					181			3500				SI-N8U0754B0WW
CM 90mm 1000lm 840 G5 (Round-090)	1240	6.7	27.5	240	480	186	25	80+	4000	Φ90x5.2	-20~+50	UL	SI-N8T0754B0WW
CM 90mm 1000lm 850 G5 (Round-090)	1250					187			5000				SI-N8R0754B0WW
CM 90mm 1000lm 857 G5 (Round-090)	1250					187			5700				SI-N8Q0754B0WW
CM 110mm 2000lm 830 G5 (Round-110)	2130					178			3000				SI-N8V1254B0WW
CM 110mm 2000lm 835 G5 (Round-110)	2150					180			3500				SI-N8U1254B0WW
CM 110mm 2000lm 840 G5 (Round-110)	2210	12.0	27.8	430	840	185	25	80+	4000	Φ110x5.2	-20~+50	UL	SI-N8T1254B0WW
CM 110mm 2000lm 850 G5 (Round-110)	2240					187			5000				SI-N8R1254B0WW
CM 110mm 2000lm 857 G5 (Round-110)	2230					186			5700				SI-N8Q1254B0WW
CM 130mm 3000lm 830 G5 (Round-130)	3170					178			3000				SI-N8V1856B0WW
CM 130mm 3000lm 835 G5 (Round-130)	3210					180			3500				SI-N8U1856B0WW
CM 130mm 3000lm 840 G5 (Round-130)	3310	17.9	27.9	640	1200	185	25	80+	4000	Φ130x5.2	-20~+50	UL	SI-N8T1856B0WW
CM 130mm 3000lm 850 G5 (Round-130)	3350					188			5000				SI-N8R1856B0WW
CM 130mm 3000lm 857 G (Round-130)	3330					186			5700				SI-N8Q1856B0WW

Circular Engine (ACOM Round Gen 2)



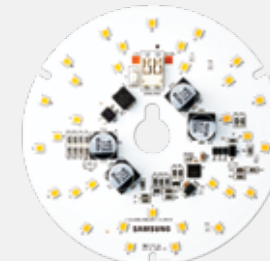
CE 120mm EU 1400lm (ACOM Round EU Gen 2)



CE 120mm KR 1400lm (ACOM Round KR)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	Flicker (%)	THD (%)	Efficacy (lm/W)	Tp (°C)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
CE 120mm 1400lm 827 G2 (ACOM Round EU Gen 2)	1430					118			2700				SI-N8W1225B1EU
CE 120mm 1400lm 830 G2 (ACOM Round EU Gen 2)	1440	12.1	230(AC)	100	15	119	25	80+	3000	Φ120x5.5	-20~+40	CE, ENEC	SI-N8V1225B1EU
CE 120mm 1400lm 840 G2 (ACOM Round EU Gen 2)	1550					128			4000				SI-N8T1225B1EU
CE 120mm 1400lm 857 G2 (ACOM Round KR)	1460	11.2	220(AC)	100	18	130	25	80+	5700	Φ120x5.5	-20~+40	-	SI-N8Q1115B1KR

Circular Engine (T-24 ACOM)



CE 100mm 1500lm (ACOM Round US)

Product	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	Flicker (%)	THD (%)	Efficacy (lm/W)	Tp (°C)	CRI	CCT (K)	Size (mm)	Temperature Range (°C)	Certification	Model Name
CE 100mm 1500lm 927 G1 (T-24 ACOM)	1530					94			2700				SI-N9W1624B1US
CE 100mm 1500lm 930 G1 (T-24 ACOM)	1540					95			3000				SI-N9V1624B1US
CE 100mm 1500lm 935 G1 (T-24 ACOM)	1600	16.2	120(AC)	< 30	11	99	25	90+	3500	Φ100x11	-20~+40	cUL, UL, Title 24	SI-N9U1624B1US
CE 100mm 1500lm 940 G1 (T-24 ACOM)	1620					100			4000				SI-N9T1624B1US



Rectangular Module (Modular Platform Engine)



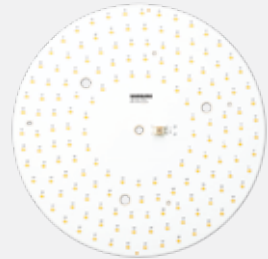
Easy-to-use modular design with various lumen packages combined with IP66-certified durability, makes it the smart choice for use in the harshest of environments

- Wide range of engine combinations well-suited for a variety of harsh environment applications
- High luminous efficacy
- Available with a full range of compatible drivers

Product	Key Features	Efficacy (lm/W)	Lifespan
<p>Rectangular Module (Modular Platform Engine)</p>	<ul style="list-style-type: none"> • Total solution integrating LED+Optics+Thermal • Seamless Combination by modular design • IP66 	●●●●○	●●●●○
<p>Circular/Square/Rectangular Module (HiLOM)</p>	<ul style="list-style-type: none"> • Greater design flexibility for various fixture designs • Commercial lens available 	●●●●●	●●●●○

Model	Light Distribution Type	Connection Type	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Temperature Range (°C)	Certification	Model Name
RM 150x65mm 2850lm 7xx G2 (T-type Gen 2, 3535)	Type2 Medium	Wire	2650	21	30.0	700	1000	128	70+	3000	295	+10~+92	CE,UL	SL-P7V2W52MBGL
			2800	21	30.0	700	1000	135	70+	4000	295	+10~+92	CE,UL	SL-P7T2W52MBGL
			2850	21	30.0	700	1000	136	70+	5000	295	+10~+92	CE,UL	SL-P7R2W52MBGL
	Type5		2650	21	30.0	700	1000	128	70+	3000	295	+10~+92	CE,UL	SL-P7V2W55SBGL
			2800	21	30.0	700	1000	135	70+	4000	295	+10~+92	CE,UL	SL-P7T2W55SBGL
			2850	21	30.0	700	1000	136	70+	5000	295	+10~+92	CE,UL	SL-P7R2W55SBGL
			2850	21	30.0	700	1000	135	70+	5000	295	+10~+92	CE,UL	SL-PGR2W51SBGL
			2850	21	30.0	700	1000	135	70+	4000	295	+10~+92	CE,UL	SL-PGT2W57SBGL
			2850	21	30.0	700	1000	135	70+	5000	295	+10~+92	CE,UL	SL-PGR2W57SBGL
			2850	21	30.0	700	1000	135	70+	5000	295	+10~+92	CE,UL	SL-PGR2W52SBGL
RM 150x65mm 2900lm 8xx G2.5 (T-type Gen 2.5, CSP)	Type2 Short	Wire-harness	2600	20	28.0	700	1000	130	80+	3000	290	+10~+92	CE,UL	SL-P8V2W6RA1WW
			2800	20	28.0			140	4000	290	SL-P8T2W6RA1WW			
			2900	20	28.0			145	5000	290	SL-P8R2W6RA1WW			
	Type1 Very Short		2900	20	28.0	145	5000	290	SL-P8Q2W6RA1WW					
			2800	20	28.0	140	4000	290	SL-P8T2W6SA1WW					
			2900	20	28.0	145	5000	290	SL-P8R2W6SA1WW					
	Tunnel		2900	20	28.0	145	5000	290	SL-P8R2W6TA1WW					
			2900	20	28.0	145	5700	290	SL-P8Q2W6TB1WW					
RM 150x65mm 3190lm 7xx G4 (T-type Gen 4, 3535)	Type2 Medium	Wire	2910	21	30.0	700	1000	144	70+	3000	295	+10~+92	CE,UL	SL-P7V2W62MCGL
			3100	21	30.0	700	1000	153	70+	4000	295	+10~+92	CE,UL	SL-P7T2W62MCGL
			3190	21	30.0	700	1000	158	70+	5000	295	+10~+92	CE,UL	SL-P7R2W62MCGL
	Type5		2910	21	30.0	700	1000	144	70+	3000	295	+10~+92	CE,UL	SL-P7V2W65SCGL
			3100	21	30.0	700	1000	153	70+	4000	295	+10~+92	CE,UL	SL-P7T2W65SCGL
			3190	21	30.0	700	1000	158	70+	5000	295	+10~+92	CE,UL	SL-P7R2W65SCGL
			2850	20	29.0	143	3500	295	+10~+92	-	SL-P7U1E6SACKR			
RM 150x65mm 2850lm 750 G4 (T-type Gen 4, 3535, Security)	Type1 Short	Wire-harness	2850	20	29.0	700	1000	143	75+	5000	295	+10~+92	-	SL-P7U1E6SACKR
RM 150x65mm 2300lm 750 G4 (T-type Gen 4, 3535, Road)	Type2 Medium		2300	14	20.0	700	1000	164	75+	5000	295	+10~+92	-	SL-PFR1E33LCWW
RM 150x65mm 3210lm 750 G4 (T-type Gen 4, 3535, Tunnel)	Type3 Very short		3210	18	25.4	700	1000	178	75+	5000	295	+10~+92	-	SL-P8R1E63MAWW

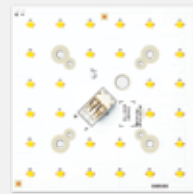
Circular/Square/Rectangular Module (HiLOM)



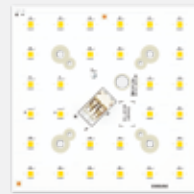
CM 250mm 25700lm (HiLOM-HCF0)



SM 73x73mm 7200lm (HiLOM-SC16)



SM 81x81mm 4700lm (HiLOM-SC28)

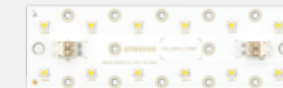


SM 81x81mm 2430lm (HiLOM-SM28)

Model	Light Distribution Type	Connection Type	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Temperature Range (°C)	Certification	Model Name
CM 250mm 25700lm 740 G1 (HiLOM-HCF0)	Ledil VICTORIA HB		25700	148.8	45.1	3300	3630	173	70+		240			SL-B7TANB0L2WW
SM 73x73mm 7200lm 740 G1 (HiLOM-SC16)	Ledil STRADA 2*2 MX		7200	59.3	24.9	2100	2310	138	70+		17.5			SL-B7T5N90L2WW
SM 81x81mm 4700lm 740 G1 (HiLOM-SC28)	Ledil STRADELLA-IP-28	Connector	4700	27.7	19.8	1400	1540	171	70+		21.2	-30~+80	CE, UL	SL-B7T2N80L2WW
SM 81x81mm 2430lm 840 G1 (HiLOM-SM28)	Ledil STRADELLA-IP-28		2430	13.8	19.7	700	770	176	80+		21.2			SL-B8T1N50L4WW



RM 225x50mm 5550lm (HiLOM-RM64)



RM 146x45mm 4050lm (HiLOM-RH12)



RM 225x50mm 5400lm (HiLOM-RH16)

Model	Light Distribution Type	Connection Type	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Temperature Range (°C)	Certification	Model Name
RM 225x50mm 5550lm 840 G1 (HiLOM-RM64)	Ledil STRADELLA16 HB		5550	31.5	22.5	1400	1540	176	80+		40.0			SL-B8T3N80L4WW
RM 146x45mm 4050lm 740 G1 (HiLOM-RH12)	Ledil STRADA IP 2*6	Connector	4050	24.7	23.4	700	770	164	70+	4000	32.5	-30~+80	CE, UL	SL-B7T2N70LCWW
RM 225x50mm 5400lm 740 G1 (HiLOM-RH16)	Ledil STRADA 2*2		5400	32.9	23.5	1400	1540	164	70+		40.0			SL-B7T3N80LCWW

Driver



- Ambient Light
- Down & Spot Light
- Outdoor Light

Ambient Light



SI-CU7014011KR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SI-CU7014011KR	40	160 x 46.4 x 30.8	120-277	25-50	500-700	87	<20	1-10V	KC	>0.9	Output current adjustable by Rset

Down & Spot Light



SI-C242120N1KR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SI-C242120N1KR	20	94.5 x 39.5 x 31	220-240	25-40	420	86	<10	Non Dim	KC	>0.9	Fixed current

Outdoor Light



SL-L27012517KR



SL-L21425017KR
SL-L22127517KR
SL-L2282A017KR



SL-L2422A517KR
SL-L2562B017KR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-L27012517KR	25				700	86				>0.9	
SL-L21425017KR	50				1400	86.5					
SL-L22127517KR	75	265 x 70 x 48.5	220-240	27-33	2100	87	<20	1-10V	KC, KS	>0.95	Independent Type, IP67, Molex, <THD 30%@1V Dimming, High Surge (±8-10KV)
SL-L2282A017KR	100				2800	88.5					
SL-L2422A517KR	150				4200	90.5					
SL-L2562B017KR	200				5600	91					



SL-L27012518KR



SL-L21425018KR
SL-L22127518KR
SL-L2282A018KR



SL-L2422A518KR
SL-L2562B018KR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-L27012518KR	25				700	86				>0.9	
SL-L21425018KR	50				1400	86.5					
SL-L22127518KR	75	265 x 70 x 48.5	220-240	27-33	2100	87	<20	1-10V	KC, KS	>0.95	Independent Type, IP67, Waterproof JST, High Surge (±8-10KV)
SL-L2282A018KR	100				2800	88.5					
SL-L2422A518KR	150				4200	90.5					
SL-L2562B018KR	200				5600	91					

Outdoor Light



SL-L21425019KR SL-L22127519KR SL-L2701251BKR



SL-L2212751BKR SL-L2562B01BKR SL-L2352A213KR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-L21425019KR	50	182 x 69 x 39.5	220-240	27-33	700	88	<20	Non Dim	KC, KS	>0.95	Independent Type, 2Channel, Available KS cert, KET Connector
SL-L22127519KR	75	182 x 69 x 39.5	220-240	27-33	700	90	<20	Non Dim	KC, KS	>0.95	Independent Type, 3Channel, Available KS cert, KET Connector
SL-L2701251BKR	25	192.6x53.6x33.9	220-240	22-27	700	87.5	<20	1-10V	KS	>0.9	
SL-L2212751BKR	75	192.6x53.6x33.9	220-240	22-27	2100	90	<20	1-10V	KS	>0.95	Independent type, IP67, Molex, <THD 30%@1V Dimming, High Surge (±6-8KV)
SL-L2562B01BKR	200	192.6x53.6x33.9	220-240	22-27	5600	91	<20	1-10V	KS	>0.95	
SL-L2352A213KR	125	228 x 68 x 39.5	220-240	24-33	3500	90	<20	1-10V	KS	>0.95	Independent Type, IP67, Molex

Outdoor Light



SL-L2701151AKR SL-L2701301AKR SL-L2701751AKR SL-L2701A51AKR
 SL-L2701251AKR SL-L2701401AKR SL-L2701A01AKR SL-L2701B01AKR
 SL-L2701501AKR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-L2701151AKR	15	177 x 40 x 37	220-240	18-33	700	84	<20	1-10V	KS	>0.9	Independent Type, IP67, KET
SL-L2701251AKR	25					85					
SL-L2701301AKR	30	210 x 40 x 37	220-240	39-63	700	86	<20	1-10V	KS	>0.9	
SL-L2701401AKR	40			87							
SL-L2701501AKR	50			88							
SL-L2701751AKR	75	182 x 66 x 38.8	220-240	85-125	700	89	<20	1-10V	KS	>0.9	
SL-L2701A01AKR	100					90					
SL-L2701A51AKR	150	228 x 68 x 39.5	220-240	177-243	700	91	<20	1-10V	KS	>0.9	
SL-L2701B01AKR	200					92					

Outdoor Light



SL-L2701A5N1KR



SL-L2701B0N1KR

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-L2701A5N1KR	150	258 x 68 x 33.9	220-240	80-100	700	92	<20	Non Dim	KS	>0.9	Independent Type, 2Channel, IP67, KET
SL-L2701B0N1KR	200			100-130		93					



SL-LU0923501US



SL-LU1425501US



SL-LU2027801US



SL-LU262A001US

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-LU0923501US	35	193 x 42.5 x 34.5	120-277	30-39	700-1050	87	<20	0-10V	cUL, UL	>0.9	Programmable Output Current, IP67
SL-LU1425501US	55	173 x 67.5 x 40	120-277	30-39	1400	88	<20	0-10V	cUL, UL	>0.9	Independent Type, IP67
SL-LU2027801US	78	173 x 67.5 x 40			2000						
SL-LU262A001US	100	187 x 67.5 x 40			2600						

Outdoor Light



SL-LA422C201WW



SL-LA212A003WW

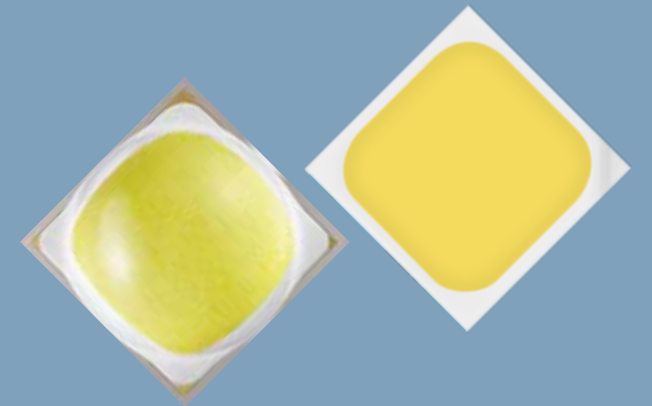
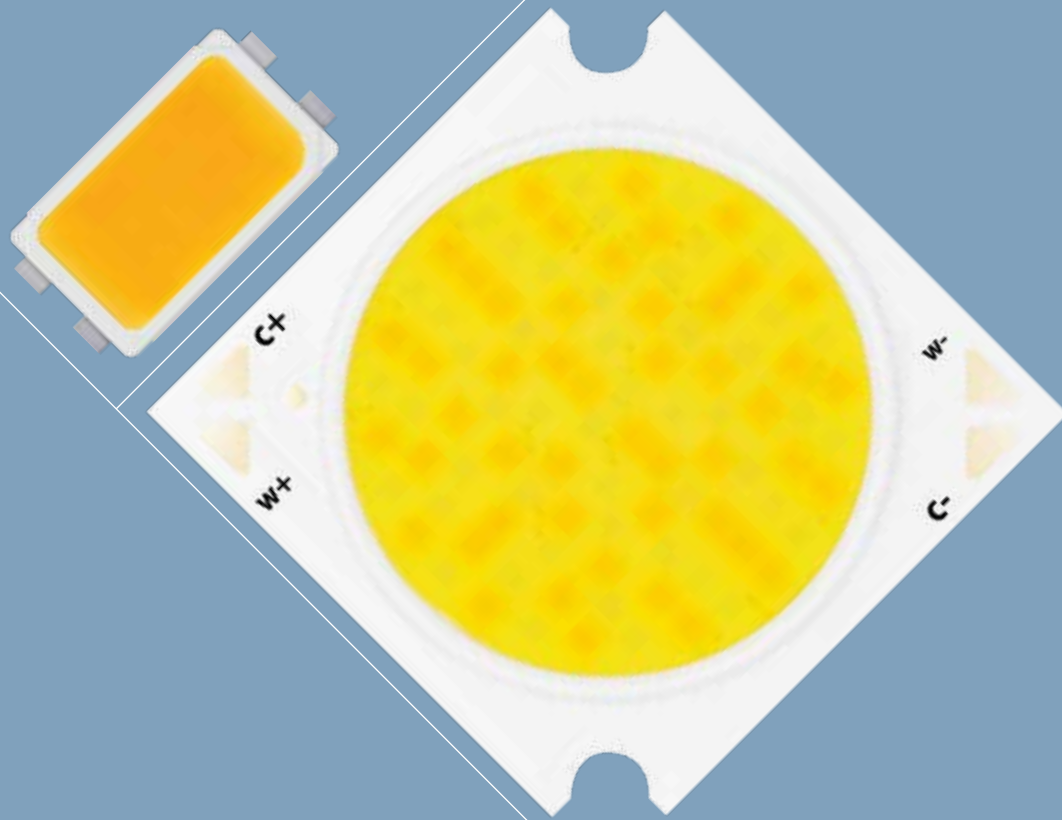
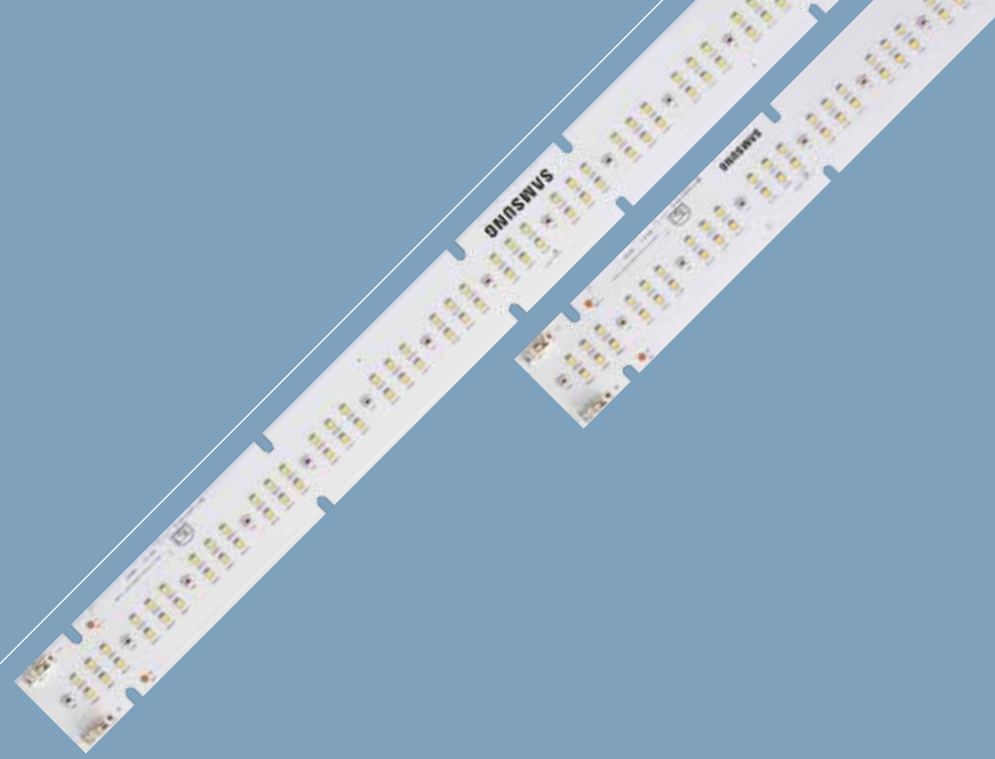
Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-LA422C201WW	320	251x90x44.5	120-277	46-114	2800-4200	93	<20	0-10V	cUL, UL	>0.95	Independent type, IP67
SL-LA212A003WW	100	187 x 67.5 x 37	120-240	29-71	140-2100	90.5	<20	0-10V	CE, ENEC	>0.9	Independent Type, Programmable Output Current, IP67



SL-LU70140D1WW

Part Number	Power Consumption (W)	Size (mm)	Input Voltage (V)	Output Voltage (V)	Output Current/ch (mA)	Efficiency (%)	THD (%)	Dimming	Certification	Power Factor	Remark
SL-LU70140D1WW	40	135x68x31.4	120-277	30-56	350-700	89	<20	DALI 2.0	CE, RCM	>0.9	Independent type, Programmable Output Current, IP67

Specialty Lighting



- Human-centric Light
- Horticulture Light
- Retail Light
- Sports Light



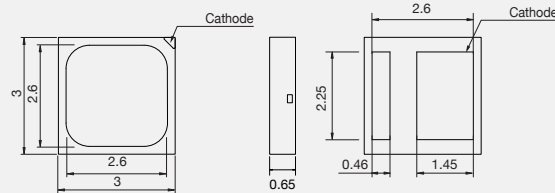
New human-centric lighting solutions with increased biological index compared to conventional LED lighting

- Designed to improve work efficiency in achieving daytime-to-evening continuity, healthy sleep and circadian rhythm 24 hours a day

LM302N DAY

Fine-tuned spectrum for more energetic moments

- 0.9W class mid power LED
- EMC package for high reliability
- Standard form factor for design flexibility (3.0mmx3.0mm)
- Patent registered for optimized spectrum



[150mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		M/P Ratio*	MDER **
			Bin	Range		
80+	3000	SPMWH3326FC5FBV☆S0	S0	110-125	0.65	0.59
	3500	SPMWH3326FC5FBU☆S0	S0	110-125	0.74	0.67
	4000	SPMWH3326FC5FBT☆S0	S0	115-125	0.84	0.76
	5000	SPMWH3326FC5FBR☆S0	S0	115-130	1.03	0.93
	5700	SPMWH3326FC5FBQ☆S0	S0	115-130	1.14	1.03
	6500	SPMWH3326FC5FBP☆S0	S0	115-130	1.24	1.12

☆☆ can be "0" (MacAdam 5 step), "3" (MacAdam 3 step), "Y" (Kitting)

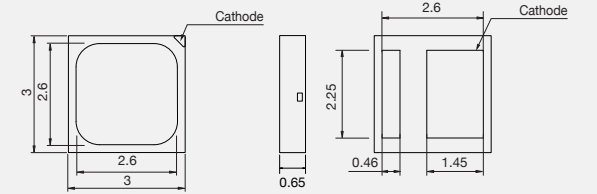
* M/P Ratio: Melanopic/Photopic Ratio

** MDER: Melanopic Daylight Equivalent Ratio

LM302N NITE

Fine-tuned spectrum for more relaxing moments

- 0.9W class mid power LED
- EMC package for high reliability
- Standard form factor for design flexibility (3.0mmx3.0mm)
- Patent registered for optimized spectrum



[150mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		M/P Ratio*	MDER**
			Bin	Range		
80+	1800	SPMWH3326FN5FBA☆S0	S0	80-95	0.20	0.18
	2200	SPMWH3326FN5FBY☆S0	S0	90-105	0.28	0.25
	2700	SPMWH3326FN5FBW☆S0	S0	95-110	0.37	0.34
	3000	SPMWH3326FN5FBV☆S0	S0	105-120	0.48	0.43
	3500	SPMWH3326FN5FBU☆S0	S0	110-125	0.56	0.51
	4000	SPMWH3326FN5FBT☆S0	S0	110-125	0.64	0.58

☆☆ can be "0" (MacAdam 5 step), "3" (MacAdam 3 step), "Y" (Kitting)

* M/P Ratio: Melanopic/Photopic Ratio

** MDER: Melanopic Daylight Equivalent Ratio



Full spectrum horticulture lighting that enriches both crop quality and output

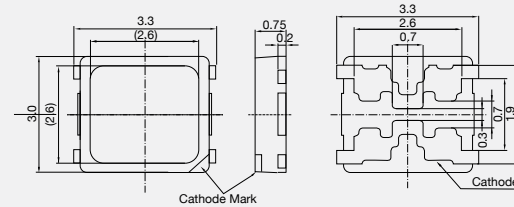
- Designed to provide excellent cutting-edge performance (PPF, PPF/W) with outstanding resistance to heat, humidity, and chemicals
- Proven levels of performance and reliability to the market

LM301H



Mid-power white LED for horticulture lighting applications

- World's best efficacy
- Footprint: 3.0mm x 3.0mm



[65mA, 25°C, 5000K, CRI80+]

Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SPMWH32AMH5XAP0SL	SL	0.56	3.10

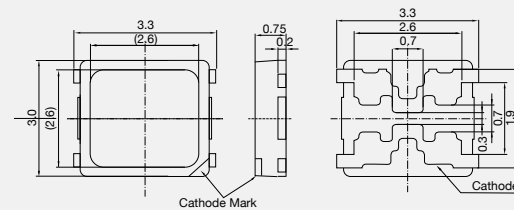
* Photosynthetic Photon Flux

LM301H ONE



Mid-power white LED for horticulture lighting applications

- Optimized spectrum for leafy greens
- Footprint: 3.0mm x 3.0mm



[65mA, 25°C, 3400K, CRI70+]

Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SPMWH32AMH1XAH0S0	S0	0.49	2.75

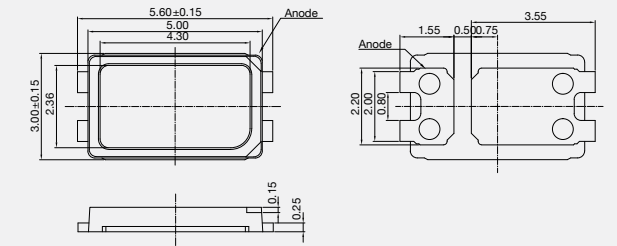
* Photosynthetic Photon Flux

LM561H



Mid-power white LED for horticulture lighting applications

- Balanced performance/cost
- Footprint: 5.6mm x 3.0mm



[65mA, 25°C, 5000K, CRI80+]

Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SPMWH541MT5XAP0S6	S6	0.51	2.84

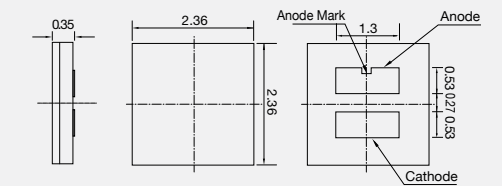
* Photosynthetic Photon Flux

LH241H



White CSP LED for horticulture lighting applications

- Compact design for small LES module
- Footprint: 2.4mm x 2.4mm



[350mA, 25°C, 5000K, CRI70+]

Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SCP7RTF1HEH1RKP34E	R1	2.51	2.52

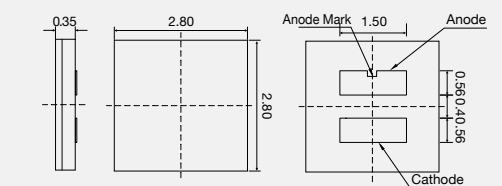
* Photosynthetic Photon Flux

LH281H



White CSP LED for horticulture lighting applications

- Compact design for small LES module
- Footprint: 2.8mm x 2.8mm



[350mA, 25°C, 5000K, CRI70+]

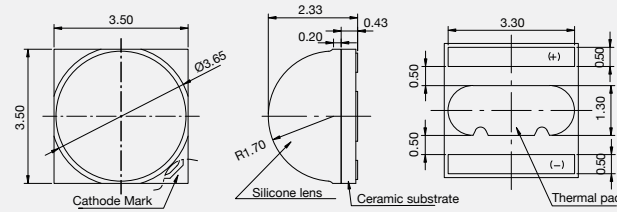
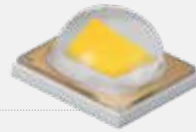
Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SCP7RTJ5EH1RLQF6E	SB	2.59	2.65

* Photosynthetic Photon Flux

LH351H-B

High power white LED for horticulture lighting applications

- Industry-proven performance and reliability
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C, 5000K, CRI70+]

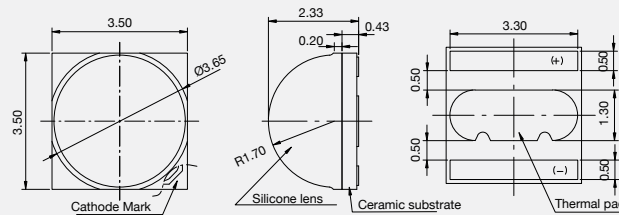
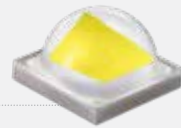
Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SPHWH2L3D3HCD4RTQ2	Q1	2.48	2.51

* Photosynthetic Photon Flux

LH351H-C

High power white LED for horticulture lighting applications

- Industry-proven performance and reliability
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C, 5000K, CRI70+]

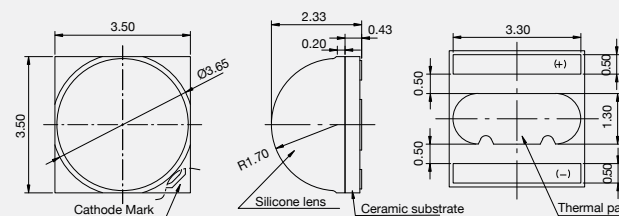
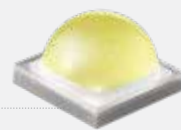
Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SPHWHTL3D5HCE4RTQF	RB	2.56	2.60

* Photosynthetic Photon Flux

LH351H-D

High power white LED for horticulture lighting applications

- Industry-proven performance and reliability
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C, 5000K, CRI70+]

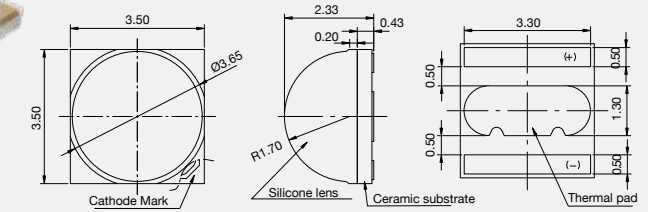
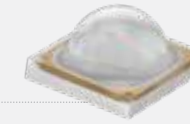
Color	Wavelength(nm)	Part Number	Flux Rank	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
White	Full	SPHWHTL3DAHCF4RTY6	Y2	2.58	2.69

* Photosynthetic Photon Flux

LH351H Blue (450nm)

High power blue LED for horticulture lighting applications

- Peak wavelength: 450nm
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C]

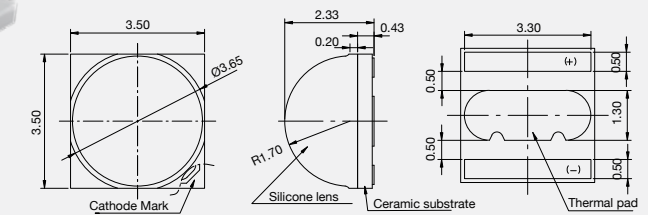
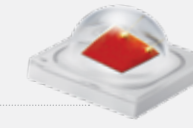
Color	Wavelength (nm)	Part Number	Optical Power Typ. (mW)	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
Blue	450	SPHBL1L3DH00L4A4B0	750	2.80	2.80

* Photosynthetic Photon Flux

LH351H Red (630nm)

High power red LED for horticulture lighting applications

- Peak wavelength: 630nm
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C]

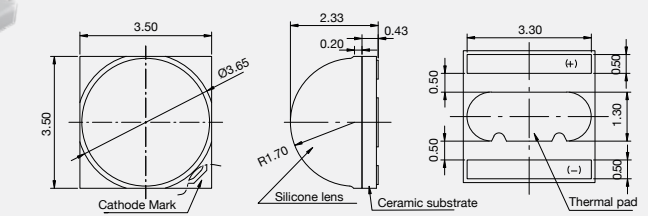
Color	Wavelength (nm)	Part Number	Optical Power Typ. (mW)	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
Red	630	SPHRD1L3DH02C8S4B7	300	1.57	2.14

* Photosynthetic Photon Flux

LH351H Deep Red (660nm)

High power deep red LED for horticulture lighting applications

- Peak wavelength: 660nm
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C]

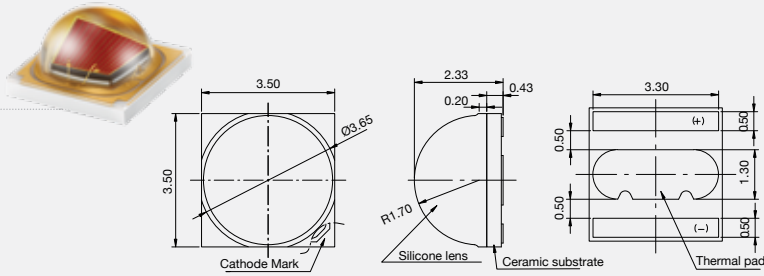
Color	Wavelength (nm)	Part Number	Optical Power Typ. (mW)	PPF* Typ. (μmol/s)	PPF/W Typ. (μmol/J)
Deep Red	660	SPHRD1L3DH00A4R2D2	425	2.32	3.12

* Photosynthetic Photon Flux

LH351H Deep Red (660nm) V2

High power deep red LED for horticulture lighting applications

- Peak wavelength: 660nm
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C]

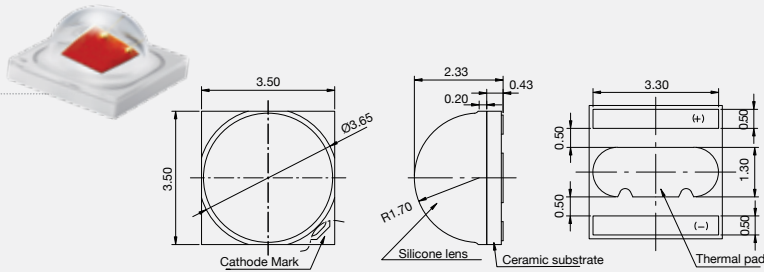
Color	Wavelength (nm)	Part Number	Optical Power Typ. (mW)	BPF* Typ. (μmol/s)	BPF/W Typ. (μmol/J)
Deep Red	660	SPHRD2L3DH20E7W410	480	2.63	3.73

* Photosynthetic Photon Flux

LH351H Far Red (730nm)

High power far red LED for horticulture lighting applications

- Peak wavelength: 730nm
- Footprint: 3.5mm x 3.5mm



[350mA, 25°C]

Color	Wavelength (nm)	Part Number	Optical Power Typ. (mW)	BPF* Typ. (μmol/s)	BPF/W Typ. (μmol/J)
Far Red	730	SPHRD1L3DH01A844B0	330	1.96	2.91

*Biologically-active Photon Flux

Horticulture LED Module



1ft



2ft

Type	Color	PPF* (μmol/s)	PPF/W** (μmol/J)	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Efficacy (lm/W)	CCT (K)	Tp (°C)	Model Name
1ft	White + Red	70.9	2.74	4110	25.8	21.5	1200	159	5390	25	SL-B8R5C9H1AWW
2ft		141.8		8220	51.7	43.1					SL-B8R5C9H2AWW

* Photosynthetic Photon Flux ** Photosynthetic Photon Efficacy

※ Optional conformal coating



Fine-tuned LEDs for color maximization

- Industry-leading light efficacies throughout various COB solutions
- Advanced object attractiveness

R-series

LC013R	LC016R	LC019R	LC026R	LC033R	LC040R



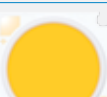

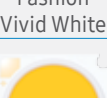

T-series

LC010T	LC020T	LC035T

R-series Fashion



Vividly enhanced colors, contrast and exceptional white light

Vivid White

Product	LES Size (mm)	CRI Min.	CCT	Color Rank	Part Number	T _j =85°C		Power, Current, Voltage	
						Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
 LC013R Fashion Vivid White	9.8 13.5x13.5	90+	3000 (Below BBL)	MacAdam 3step	SPHWHAHND27YZVND2	1435	115	12.5W 360mA 34.6V	34.5W 920mA 37.5V
			3500 (Below BBL)	MacAdam 3step	SPHWHAHND27YZUND2	1494	120		
			4000 (Below BBL)	MacAdam 3step	SPHWHAHND27YZTND2	1541	124		
 LC016R Fashion Vivid White	14.5 19x19	90+	3000 (Below BBL)	MacAdam 3step	SPHWHAHNDNE27YZVND2	1837	118	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
			3500 (Below BBL)	MacAdam 3step	SPHWHAHNDNE27YZUND2	1912	123		
			4000 (Below BBL)	MacAdam 3step	SPHWHAHNDNE27YZTND2	1972	127		
 LC019R Fashion Vivid White	14.5 19x19	90+	3000 (Below BBL)	MacAdam 3step	SPHWHAHDNF27YZVND2	2195	117	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
			3500 (Below BBL)	MacAdam 3step	SPHWHAHDNF27YZUND2	2284	122		
			4000 (Below BBL)	MacAdam 3step	SPHWHAHDNF27YZTND2	2355	126		
 LC026R Fashion Vivid White	14.5 19x19	90+	3000 (Below BBL)	MacAdam 3step	SPHWHAHDNG27YZVND2	2917	117	24.9W 720mA 34.6V	69W 1840mA 37.5V
			3500 (Below BBL)	MacAdam 3step	SPHWHAHDNG27YZUND2	3036	122		
			4000 (Below BBL)	MacAdam 3step	SPHWHAHDNG27YZTND2	3131	126		
 LC033R Fashion Vivid White	14.5 19x19	90+	3000 (Below BBL)	MacAdam 3step	SPHWHAHDNH27YZVND2	3589	115	31.1W 900mA 34.6V	86.2W 2300mA 37.5V
			3500 (Below BBL)	MacAdam 3step	SPHWHAHDNH27YZUND2	3735	120		
			4000 (Below BBL)	MacAdam 3step	SPHWHAHDNH27YZTND2	3852	124		
 LC040R Fashion Vivid White	22 28x28	90+	3000 (Below BBL)	MacAdam 3step	SPHWHAHDNK27YZVND2	4428	118	37.4W 1080mA 34.6V	103.5W 2760mA 37.5V
			3500 (Below BBL)	MacAdam 3step	SPHWHAHDNK27YZUND2	4591	123		
			4000 (Below BBL)	MacAdam 3step	SPHWHAHDNK27YZTND2	4745	127		

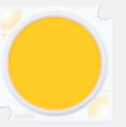
Vivid Color

Product	LES Size (mm)	CCT	Color Rank	Part Number	T _j =85°C		Power, Current, Voltage	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
 LC013R Fashion Vivid Color	9.8 13.5x13.5	3000 (Below BBL)	MacAdam 2step	SPHWHAHND2VYZV2D2	1334	107	12.5W 360mA 34.6V	34.5W 920mA 37.5V
			MacAdam 3step	SPHWHAHND2VYZVVD2				
			MacAdam 2step	SPHWHAHND2VYZA2D2	1394	112		
			MacAdam 3step	SPHWHAHND2VYZAVD2				
			MacAdam 2step	SPHWHAHND2VYZU2D2	1433	115		
			MacAdam 3step	SPHWHAHND2VYZUVD2				
LC016R Fashion Vivid Color	14.5 19x19	3000 (Below BBL)	MacAdam 2step	SPHWHAHND2VYZV2D2	1745	112	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
			MacAdam 3step	SPHWHAHND2VYZVVD2				
			MacAdam 2step	SPHWHAHND2VYZA2D2	1823	117		
			MacAdam 3step	SPHWHAHND2VYZAVD2				
			MacAdam 2step	SPHWHAHND2VYZU2D2	1875	120		
			MacAdam 3step	SPHWHAHND2VYZUVD2				
LC019R Fashion Vivid Color	14.5 19x19	3000 (Below BBL)	MacAdam 2step	SPHWHAHND2VYZT2D2	2005	129	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
			MacAdam 3step	SPHWHAHND2VYZTVD2				
			MacAdam 2step	SPHWHAHDNF2VYZV2D2	2068	111		
			MacAdam 3step	SPHWHAHDNF2VYZVVD2				
			MacAdam 2step	SPHWHAHDNF2VYZA2D2	2160	116		
			MacAdam 3step	SPHWHAHDNF2VYZAVD2				
LC019R Fashion Vivid Color	14.5 19x19	3500 (Below BBL)	MacAdam 2step	SPHWHAHDNF2VYZU2D2	2222	119	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
			MacAdam 3step	SPHWHAHDNF2VYZUVD2				
			MacAdam 2step	SPHWHAHDNF2VYZT2D2	2376	127		
			MacAdam 3step	SPHWHAHDNF2VYZTVD2				

Product	LES Size (mm)	CCT	Color Rank	Part Number	T _j =85°C		Power, Current, Voltage	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
 LC026R Fashion Vivid Color	14.5 19x19	3000 (Below BBL)	MacAdam 2step	SPHWHAHNDG2VYZV2D2	2706	109	24.9W 720mA 34.6V	69W 1840mA 37.5V
			MacAdam 3step	SPHWHAHNDG2VYZVVD2				
		3300 (Below BBL)	MacAdam 2step	SPHWHAHNDG2VYZA2D2	2827	113		
			MacAdam 3step	SPHWHAHNDG2VYZAVD2				
		3500 (Below BBL)	MacAdam 2step	SPHWHAHNDG2VYZU2D2	2907	117		
			MacAdam 3step	SPHWHAHNDG2VYZUVD2				
		4000 (Below BBL)	MacAdam 2step	SPHWHAHNDG2VYZT2D2	3108	125		
			MacAdam 3step	SPHWHAHNDG2VYZTVD2				
 LC033R Fashion Vivid Color	14.5 19x19	3000 (Below BBL)	MacAdam 2step	SPHWHAHDNH2VYZV2D2	3339	107	31.1W 900mA 34.6V	86.2W 2300mA 37.5V
			MacAdam 3step	SPHWHAHDNH2VYZVVD2				
		3300 (Below BBL)	MacAdam 2step	SPHWHAHDNH2VYZA2D2	3488	112		
			MacAdam 3step	SPHWHAHDNH2VYZAVD2				
		3500 (Below BBL)	MacAdam 2step	SPHWHAHDNH2VYZU2D2	3588	115		
			MacAdam 3step	SPHWHAHDNH2VYZUVD2				
		4000 (Below BBL)	MacAdam 2step	SPHWHAHDNH2VYZT2D2	3836	123		
			MacAdam 3step	SPHWHAHDNH2VYZTVD2				
 LC040R Fashion Vivid Color	22 28x28	3000 (Below BBL)	MacAdam 2step	SPHWHAHDNK2VYZV2D2	4150	111	37.4W 1080mA 34.6V	103.5W 2760mA 37.5V
			MacAdam 3step	SPHWHAHDNK2VYZVVD2				
		3300 (Below BBL)	MacAdam 2step	SPHWHAHDNK2VYZA2D2	4335	116		
			MacAdam 3step	SPHWHAHDNK2VYZAVD2				
		3500 (Below BBL)	MacAdam 2step	SPHWHAHDNK2VYZU2D2	4459	119		
			MacAdam 3step	SPHWHAHDNK2VYZUVD2				
		4000 (Below BBL)	MacAdam 2step	SPHWHAHDNK2VYZT2D2	4768	128		
			MacAdam 3step	SPHWHAHDNK2VYZTVD2				

R-series Meat

Special spectrum enhanced vividness for Meat

Product	LES Size (mm)	Color Rank	Part Number	T _j =85°C		Power, Current, Voltage	
				Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
 LC013R Meat	9.8 13.5x13.5	MacAdam 2step	SPHWHAHND2VYZTSD2	914	73	12.5W 360mA 34.6V	34.5W 920mA 37.5V
 LC016R Meat	14.5 19x19	MacAdam 2step	SPHWHAHND2VYZTSD2	1188	76	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
 LC019R Meat	14.5 19x19	MacAdam 2step	SPHWHAHDF2VYZTSD2	1412	76	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
 LC026R Meat	14.5 19x19	MacAdam 2step	SPHWHAHNDG2VYZTSD2	1845	74	24.9W 720mA 34.6V	69W 1840mA 37.5V
 LC033R Meat	14.5 19x19	MacAda 2step	SPHWHAHDNH2VYZTSD2	2284	73	31.1W 900mA 34.6V	86.2W 2300mA 37.5V




R-series Vegetable

Special spectrum enhanced vividness for Vegetable

Product	LES Size (mm)	Color Rank	Part Number	T _j =85°C		Power, Current, Voltage	
				Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
 LC013R Vegetable	9.8 13.5x13.5	MacAdam 2step	SPHWAHDND2VYZRSD2	1188	95	12.5W 360mA 34.6V	34.5W 920mA 37.5V
 LC016R Vegetable	14.5 19x19	MacAdam 2step	SPHWAHDNE2VYZRSD2	1544	99	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
 LC019R Vegetable	14.5 19x19	MacAdam 2step	SPHWAHDNF2VYZRSD2	1835	98	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
 LC026R Vegetable	14.5 19x19	MacAdam 2step	SPHWAHDNG2VYZRSD2	2399	96	24.9W 720mA 34.6V	69W 1840mA 37.5V
 LC033R Vegetable	14.5 19x19	MacAda 2step	SPHWAHDNH2VYZRSD2	2969	95	31.1W 900mA 34.6V	86.2W 2300mA 37.5V

T-series

Wide CCT tuning (2700K~6500K) through 2-channel (warm & cool white) current driving

Product	LES Size (mm)	CRI Min.	CCT (K)	Color Rank	Part Number	T _j =85°C		Power, Current, Voltage	
						Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
 LC010T	9.8 19x19	80+	2700	MacAdam 3step	SPHWAHDNC25YZWPT1	1190	120	9.8W 280mA 35.0V	15W 400mA 36.0V
			6500	MacAdam 5step		1352	136		
			2700	MacAdam 3step	SPHWAHDNC27YZWPT1	988	99		
			5000	MacAdam 5step		1149	116		
 LC020T	13 19x19	80+	2700	MacAdam 3step	SPHWAHDNF25YZWPT1	2355	118	19.6W 560mA 35.0V	30W 800mA 36.0V
			6500	MacAdam 5step		2676	135		
			2700	MacAdam 3step	SPHWAHDNF27YZWPT1	1956	98		
			5000	MacAdam 5step		2275	114		
 LC035T	22 28x28	80+	2700	MacAdam 3step	SPHWAHDNH25YZWPT1	4405	127	34.3W 980mA 35.0V	45W 1250mA 36.0V
			6500	MacAdam 5step		5006	144		
			2700	MacAdam 3step	SPHWAHDNH27YZWPT1	3660	105		
			5000	MacAdam 5step		4255	122		



High power LEDs with TLCI 90+, optimized for sports lighting applications

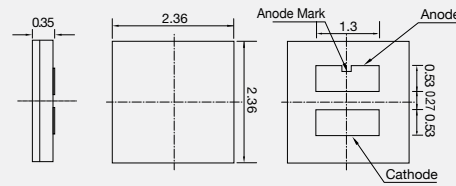
- Adapted a technology combining chip and phosphor
- A lineup offering long lifespan and low thermal resistance

LH181B



Compact form factor for high density sports lighting

- 3W, 2.75V high power LED
- Beam angle: 120°
- Thermal resistance: 2.0K/W
- Compact footprint: 2.36mm x 2.36mm



[350mA, 85°C]

CRI	CCT (K)	TLCI	Part Number	Luminous Flux (lm)		
				Bin	Min.	Max.
70+	2700	-	SCP7WTF1HEL1W◇M34E	M1, N1, P1	140	170
	3000	-	SCP7VTF1HEL1V◇N34E	N1, P1, Q1	150	180
	3500	-	SCP7UTF1HEL1U◇N34E	N1, P1, Q1	150	180
	4000	-	SCP7TTF1HEL1T◇P34E	P1, Q1, R1	160	190
	5000	-	SCP7RTF1HEL1R◇P34E	P1, Q1, R1	160	190
	5700	-	SCP7QTF1HEL1Q◇P34E	P1, Q1, R1	160	190
80+	6500	-	SCP7PTF1HEL1P◇N34E	N1, P1, Q1	150	180
	2200	-	SCP8YTF1HEL1Y◇H34E	H1, J1, K1	110	140
	2700	-	SCP8WTF1HEL1W◇K34E	K1, M1, N1	130	160
	3000	-	SCP8VTF1HEL1V◇K34E	K1, M1, N1	130	160
	3500	-	SCP8UTF1HEL1U◇M34E	M1, N1, P1	140	170
	4000	-	SCP8TTF1HEL1T◇M34E	M1, N1, P1	140	170
90+	5000	-	SCP8RTF1HEL1R◇N34E	N1, P1, Q1	150	180
	5700	-	SCP8QTF1HEL1Q◇N34E	N1, P1, Q1	150	180
	6500	-	SCP8PTF1HEL1P◇M34E	M1, N1, P1	140	170
	2700	-	SCP9WTF1HEL1W◇G34E	G1, H1, J1	100	130
	3000	-	SCP9VTF1HEL1V◇G34E	G1, H1, J1	100	130
	3500	-	SCP9UTF1HEL1U◇H34E	H1, J1, K1	110	140
90+	4000	-	SCP9TTF1HEL1T◇H34E	H1, J1, K1	110	140
	5000	-	SCP9RTF1HEL1R◇H34E	H1, J1, K1	110	140
	5700	93+	SCP9QTF1HEL1Q◇H34E	G1, H1, J1	100	130

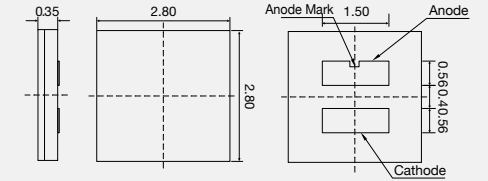
* "◇" can be "K" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LH231B



Compact form factor for high density sports lighting

- 5W, 2.85V high power LED
- Beam angle: 120°
- Thermal resistance: 2.0K/W
- Compact footprint: 2.8mm x 2.8mm



[700mA, 85°C]

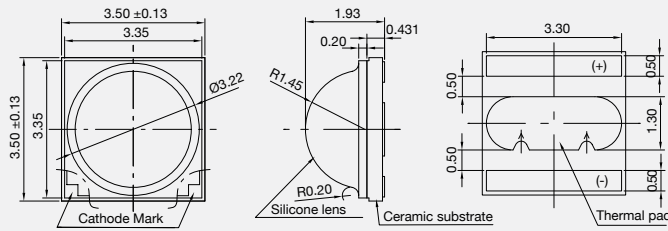
CRI	CCT (K)	TLCI	Part Number	Luminous Flux (lm)		
				Bin	Min.	Max.
70+	2700	-	SCP7WTJ5HEL1W☆MF6E	MB, NB, PB	250	310
	3000	-	SCP7VTJ5HEL1V☆NF6E	NB, PB, QB	270	330
	3500	-	SCP7UTJ5HEL1U☆PF6E	PB, QB, RB	290	350
	4000	-	SCP7TTJ5HEL1T☆QF6E	QB, RB, SB	310	370
	5000	-	SCP7RTJ5HEL1R☆QF6E	QB, RB, SB	310	370
	5700	-	SCP7QTJ5HEL1Q☆QF6E	QB, RB, SB	310	370
80+	6500	-	SCP7PTJ5HEL1P☆PF6E	PB, QB, RB	290	350
	2700	-	SCP8WTJ5HEL1W☆MF6E	MB, NB, PB	250	310
	3000	-	SCP8VTJ5HEL1V☆MF6E	MB, NB, PB	250	310
	3500	-	SCP8UTJ5HEL1U☆NF6E	NB, PB, QB	270	330
	4000	-	SCP8TTJ5HEL1T☆NF6E	NB, PB, QB	270	330
	5000	-	SCP8RTJ5HEL1R☆PF6E	PB, QB, RB	290	350
90+	5700	-	SCP8QTJ5HEL1Q☆NF6E	NB, PB, QB	270	330
	6500	-	SCP8PTJ5HEL1P☆NF6E	NB, PB, QB	270	330
	2700	-	SCP9WTJ5HEL1W☆HF6E	HB, JB, KB	190	250
	3000	-	SCP9VTJ5HEL1V☆HF6E	HB, JB, KB	190	250
	3500	-	SCP9UTJ5HEL1U☆JF6E	JB, KB, MB	210	270
	4000	-	SCP9TTJ5HEL1T☆JF6E	JB, KB, MB	210	270

* "☆" can be "L" (MacAdam 5-step ellipse bin), "U" (MacAdam 3-step ellipse bin) of the color binning

LH351B

Cost effective for sports lighting applications

- 3W, 2.7V high power LED
- Beam angle: 120°
- Thermal resistance: 4.2K/W
- Footprint: 3.5mm x 3.5mm



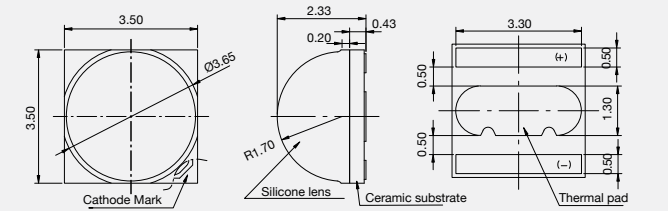
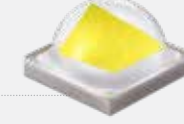
[350mA, 85°C]

CRI	CCT (K)	TLCI	Part Number	Luminous Flux (lm)		
				Bin	Min.	Max.
70+	2200	-	SPHWH2L3D30CD4Y0J3	J1, K1, M1	120	150
			SPHWH2L3D30CD4Y0K3	K1, M1, N1	130	160
			SPHWH2L3D30CD4W0K3	K1, M1, N1	130	160
	2700	-	SPHWH2L3D30CD4W0M3	M1, N1, P1	140	170
			SPHWH2L3D30CD4W0N3	N1, P1, Q1	150	180
			SPHWH2L3D30CD4V0M3	M1, N1, P1	140	170
	3000	-	SPHWH2L3D30CD4V0N3	N1, P1, Q1	150	180
			SPHWH2L3D30CD4U0K3	K1, M1, N1	130	160
			SPHWH2L3D30CD4U0M3	M1, N1, P1	140	170
	3500	-	SPHWH2L3D30CD4U0N3	N1, P1, Q1	150	180
			SPHWH2L3D30CD4TON3	N1, P1, Q1	150	180
			SPHWH2L3D30CD4T0P3	P1, Q1, R1	160	190
	4000	-	SPHWH2L3D30CD4T0P3	P1, Q1, R1	160	190
			SPHWH2L3D30CD4RTM3	M1, N1, P1	140	170
			SPHWH2L3D30CD4RTN3	N1, P1, Q1	150	180
	5000	-	SPHWH2L3D30CD4RTP3	P1, Q1, R1	160	190
			SPHWH2L3D30CD4RTQ2	Q1, R1	170	190
			SPHWH2L3D30CD4QTN3	N1, P1, Q1	150	180
5700	-	SPHWH2L3D30CD4QTP3	P1, Q1, R1	160	190	
		SPHWH2L3D30CD4PTN3	N1, P1, Q1	150	180	
		SPHWH2L3D30CD4PTP3	P1, Q1, R1	160	190	
80+	2200	-	SPHWH2L3D30ED4Y0G3	G1, H1, J1	100	130
			SPHWH2L3D30ED4W0J3	J1, K1, M1	120	150
			SPHWH2L3D30ED4W0K3	K1, M1, N1	130	160
	2700	-	SPHWH2L3D30ED4V0J3	J1, K1, M1	120	150
			SPHWH2L3D30ED4V0K3	K1, M1, N1	130	160
			SPHWH2L3D30ED4V0M3	M1, N1, P1	140	170
	3000	-	SPHWH2L3D30ED4V0N3	N1, P1, Q1	150	180
			SPHWH2L3D30ED4U0K3	K1, M1, N1	130	160
			SPHWH2L3D30ED4U0M3	M1, N1, P1	140	170
	3500	-	SPHWH2L3D30ED4T0K3	K1, M1, N1	130	160
			SPHWH2L3D30ED4T0M3	M1, N1, P1	140	170
			SPHWH2L3D30ED4RTP3	M1, N1, P1	140	170
	4000	-	SPHWH2L3D30ED4RTN3	N1, P1, Q1	150	180
			SPHWH2L3D30ED4QTM3	M1, N1, P1	140	170
			SPHWH2L3D30ED4PQK3	K1, M1, N1	130	160
	5000	-	SPHWH2L3D30ED4PQM3	M1, N1, P1	140	170
			SPHWH2L3D30ED4PTK3	K1, M1, N1	130	160
			SPHWH2L3D30ED4PTM3	M1, N1, P1	140	170
6000	-	SPHWH2L3D30ED4W0F3	F1, G1, H1	90	120	
		SPHWH2L3D30ED4W0G3	G1, H1, J1	100	130	
		SPHWH2L3D30ED4V0G3	G1, H1, J1	100	130	
3000	-	SPHWH2L3D30GD4V0H3	H1, J1, K1	110	140	
		SPHWH2L3D30GD4U0G3	G1, H1, J1	100	130	
		SPHWH2L3D30GD4U0H3	H1, J1, K1	110	140	
3500	-	SPHWH2L3D30GD4T0J3	J1, K1, M1	120	150	
		SPHWH2L3D30GD4T0K3	K1, M1, N1	130	160	
		SPHWH2L3D30GD4T0M3	M1, N1, P1	140	170	

LH351C

High performance suitable for sports lighting applications

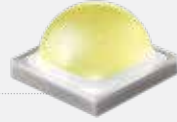
- 5W, 2.85V high power LED
- Beam angle: 128°
- Thermal resistance: 3.0K/W
- Footprint: 3.5mm x 3.5mm



[700mA, 85°C]

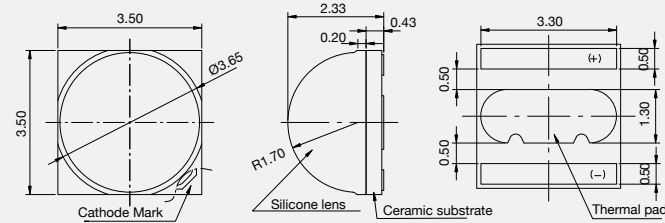
CRI	CCT (K)	TLCI	Part Number	Luminous Flux (lm)		
				Bin	Min.	Max.
70+	2200	-	SPHWHTL3D50CE4Y0MF	MB, NB, PB	250	310
			SPHWHTL3D50CE4W0MF	MB, NB, PB	250	310
			SPHWHTL3D50CE4W0NF	NB, PB, QB	270	330
	2700	-	SPHWHTL3D50CE4V0NF	NB, PB, QB	270	330
			SPHWHTL3D50CE4V0PF	PB, QB, RB	290	350
			SPHWHTL3D50CE4V0QF	QB, RB, SB	310	370
	3000	-	SPHWHTL3D50CE4U0PF	PB, QB, RB	290	350
			SPHWHTL3D50CE4U0QF	QB, RB, SB	310	370
			SPHWHTL3D50CE4T0PF	PB, QB, RB	290	350
	3500	-	SPHWHTL3D50CE4T0QF	QB, RB, SB	310	370
			SPHWHTL3D50CE4RTPF	PB, QB, RB	290	350
			SPHWHTL3D50CE4RTQF	QB, RB, SB	310	370
	4000	-	SPHWHTL3D50CE4QTPF	PB, QB, RB	290	350
			SPHWHTL3D50CE4QTF	QB, RB, SB	310	370
			SPHWHTL3D50CE4PTPF	PB, QB, RB	290	350
	4000	-	SPHWHTL3D50CE4PTQF	QB, RB, SB	310	370
			SPHWHTL3D50DE4V0PF	PB, QB, RB	290	350
			SPHWHTL3D50DE4U0PF	PB, QB, RB	290	350
5000	-	SPHWHTL3D50DE4T0PF	PB, QB, RB	290	350	
		SPHWHTL3D50DE4RTPF	PB, QB, RB	290	350	
		SPHWHTL3D50DE4RTQF	QB, RB, SB	310	370	
5700	-	SPHWHTL3D50DE4QTPF	PB, QB, RB	290	350	
		SPHWHTL3D50DE4QTF	QB, RB, SB	310	370	
		SPHWHTL3D50DE4PTQF	PB, QB, RB	290	350	
6500	-	SPHWHTL3D50DE4PTQF	QB, RB, SB	310	370	
		SPHWHTL3D50EE4W0MF	MB, NB, PB	250	310	
		SPHWHTL3D50EE4V0NF	NB, PB, QB	270	330	
75+	2700	-	SPHWHTL3D50EE4U0NF	NB, PB, QB	270	330
			SPHWHTL3D50EE4T0MF	MB, NB, PB	250	310
			SPHWHTL3D50EE4T0NF	NB, PB, QB	270	330
80+	4000	-	SPHWHTL3D50EE4RTNF	NB, PB, QB	270	330
			SPHWHTL3D50EE4RTPF	PB, QB, RB	290	350
			SPHWHTL3D50EE4QTNF	NB, PB, QB	270	330
80+	5000	-	SPHWHTL3D50EE4QTPF	PB, QB, RB	290	350
			SPHWHTL3D50GE4W0HF	HB, JB, KB	190	250
			SPHWHTL3D50GE4W0JF	JB, KB, MB	210	270
90+	2700	-	SPHWHTL3D50GE4V0JF	JB, KB, MB	210	270
			SPHWHTL3D50GE4U0JF	JB, KB, MB	210	270
			SPHWHTL3D50GE4U0KF	KB, MB, NB	230	290
3000	-	SPHWHTL3D50GE4T0JF	JB, KB, MB	210	270	
		SPHWHTL3D50GE4T0KF	KB, MB, NB	230	290	
		SPHWHTL3D50GE4RTKF	KB, MB, NB	230	290	
3500	-	SPHWHTL3D50GE4RTMF	MB, NB, PB	250	310	
		SPHWHTL3D50GE4QTKF	KB, MB, NB	230	290	
		SPHWHTL3D50GE4QTMF	MB, NB, PB	250	310	
5000	-	SPHWHTL3D50TV4QTKF	KB, MB, NB	230	290	
		SPHWHTL3D50TV4QTKF	KB, MB, NB	230	290	
		SPHWHTL3D50TV4QTKF	KB, MB, NB	230	290	

LH351D



Best solution for high lumen output: street & sports lighting applications

- 10W, 2.99V high power LED
- Beam angle: 128°
- Thermal resistance: 2.2K/W
- Footprint: 3.5mm x 3.5mm



[1050mA, 85°C]

CRI	CCT (K)	TLCI	Part Number	Luminous Flux (lm)		
				Bin	Min.	Max.
70+	2700	-	SPHWHTL3DA0CF4W0S6	S2, T2, U2	380	420
			SPHWHTL3DA0CF4W0T6	T2, U2, V2	400	440
	3000	-	SPHWHTL3DA0CF4V0T6	T2, U2, V2	400	440
			SPHWHTL3DA0CF4V0U6	U2, V2, W2	420	460
			SPHWHTL3DA0CF4V0V6	V2, W2, Y2	440	480
			SPHWHTL3DA0CF4V0W6	W2, Y2, Z2	460	500
	3500	-	SPHWHTL3DA0CF4U0V6	V2, W2, Y2	440	480
			SPHWHTL3DA0CF4U0W6	W2, Y2, Z2	460	500
	4000	-	SPHWHTL3DA0CF4U0Y6	Y2, Z2, 12	480	520
			SPHWHTL3DA0CF4T0W6	W2, Y2, Z2	460	520
	5000	-	SPHWHTL3DA0CF4T0Y6	Y2, Z2, 12	480	540
			SPHWHTL3DA0CF4RTW6	W2, Y2, Z2	460	500
	5700	-	SPHWHTL3DA0CF4RTY6	Y2, Z2, 12	480	520
			SPHWHTL3DA0CF4RTZ6	Z2, 12, 22	500	540
	6500	-	SPHWHTL3DA0CF4QTV6	V2, W2, Y2	440	480
			SPHWHTL3DA0CF4QTW6	W2, Y2, Z2	460	500
	6500	-	SPHWHTL3DA0CF4QTY6	Y2, Z2, 12	480	520
			SPHWHTL3DA0CF4PTW6	W2, Y2, Z2	460	500
6500	-	SPHWHTL3DA0CF4PTY6	Y2, Z2, 12	480	520	

CRI	CCT (K)	TLCI	Part Number	Luminous Flux (lm)		
				Bin	Min.	Max.
80+	2700	-	SPHWHTL3DA0EF4W0Q6	Q2, R2, S2	340	380
			SPHWHTL3DA0EF4W0R6	R2, S2, T2	360	400
	3000	-	SPHWHTL3DA0EF4V0R6	R2, S2, T2	360	400
			SPHWHTL3DA0EF4U0R6	R2, S2, T2	360	400
	3500	-	SPHWHTL3DA0EF4U0S6	S2, T2, U2	380	420
			SPHWHTL3DA0EF4T0S6	S2, T2, U2	380	420
	4000	-	SPHWHTL3DA0EF4T0T6	T2, U2, V2	400	440
			SPHWHTL3DA0EF4RTS6	S2, T2, U2	380	420
	5000	-	SPHWHTL3DA0EF4RTT6	T2, U2, V2	400	440
			SPHWHTL3DA0EF4RTU6	U2, V2, W2	420	460
	5300	-	SPHWHTL3DA0EF4QRT6	T2, U2, V2	400	440
			SPHWHTL3DA0EF4QRU6	U2, V2, W2	420	460
	5700	-	SPHWHTL3DA0EF4QTT6	T2, U2, V2	400	440
			SPHWHTL3DA0EF4QTU6	U2, V2, W2	420	460
	6000	-	SPHWHTL3DA0EF4PQT6	T2, U2, V2	400	440
			SPHWHTL3DA0EF4PQU6	U2, V2, W2	420	460
	6500	-	SPHWHTL3DA0EF4PTT6	T2, U2, V2	400	440
			SPHWHTL3DA0EF4PTU6	U2, V2, W2	420	460
90+	2700	-	SPHWHTL3DA0GF4W0M6	M2, N2, P2	280	320
			SPHWHTL3DA0GF4W0N6	N2, P2, Q2	300	340
	3000	-	SPHWHTL3DA0GF4V0N6	N2, P2, Q2	300	340
			SPHWHTL3DA0GF4V0P6	P2, Q2, R2	320	360
	3500	-	SPHWHTL3DA0GF4U0N6	N2, P2, Q2	300	340
			SPHWHTL3DA0GF4U0P6	P2, Q2, R2	320	360
	4000	-	SPHWHTL3DA0GF4T0P6	P2, Q2, R2	320	360
			SPHWHTL3DA0GF4T0Q6	Q2, R2, S2	340	380
	5000	-	SPHWHTL3DA0GF4RTR6	R2, S2, T2	360	400
			SPHWHTL3DA0GF4RTS6	S2, T2, U2	380	420
	6000	-	SPHWHTL3DA0GF4PQR6	R2, S2, T2	360	400
			SPHWHTL3DA0GF4PQS6	S2, T2, U2	380	420
5700	90+	-	SPHWHTL3DA0TV4QTS6	S2, T2, U2	380	420