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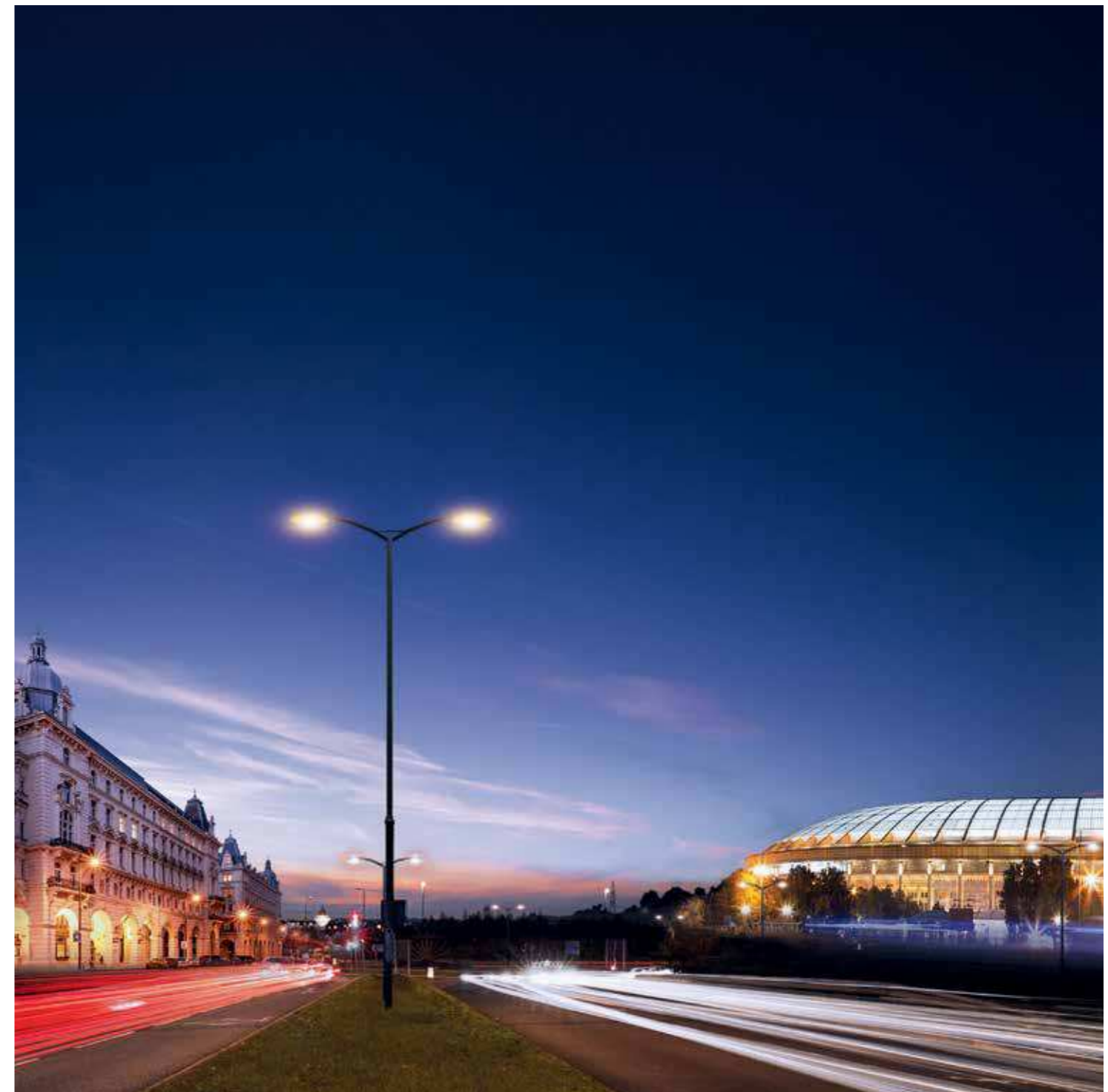
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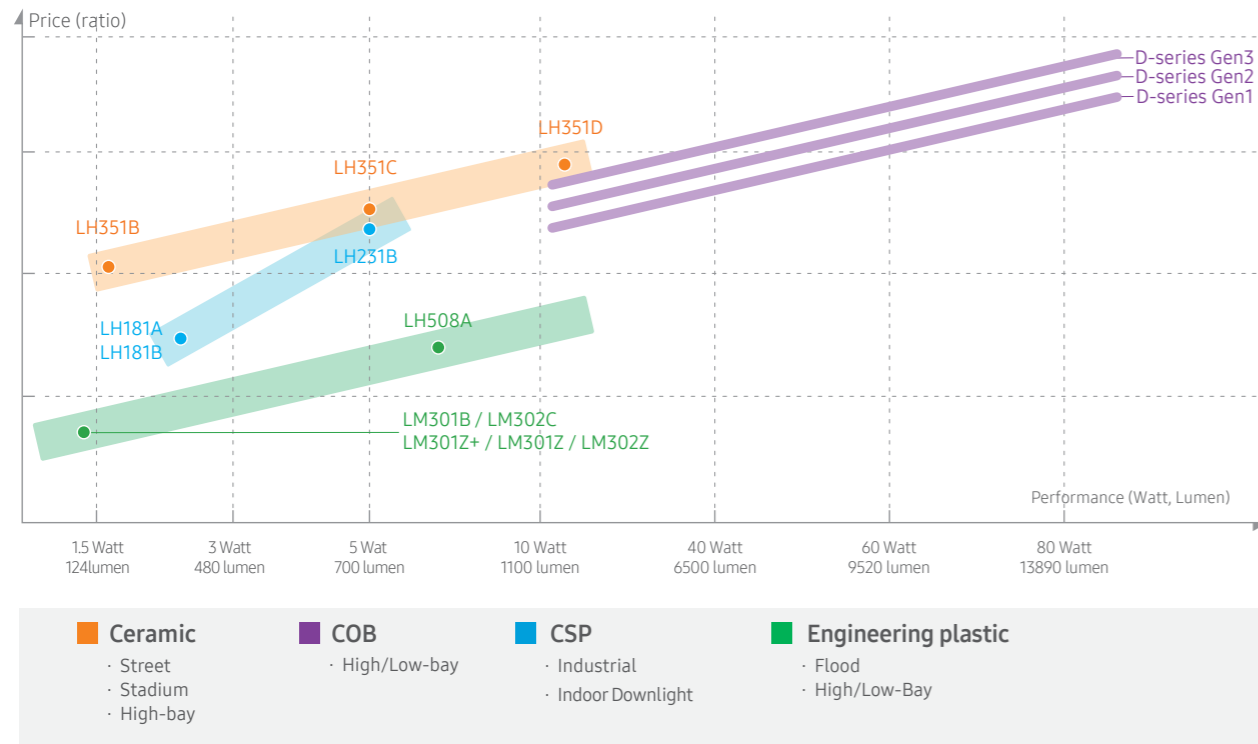
Samsung LED Total Solutions for Outdoor Lighting

- Components
- Modules
- Drivers

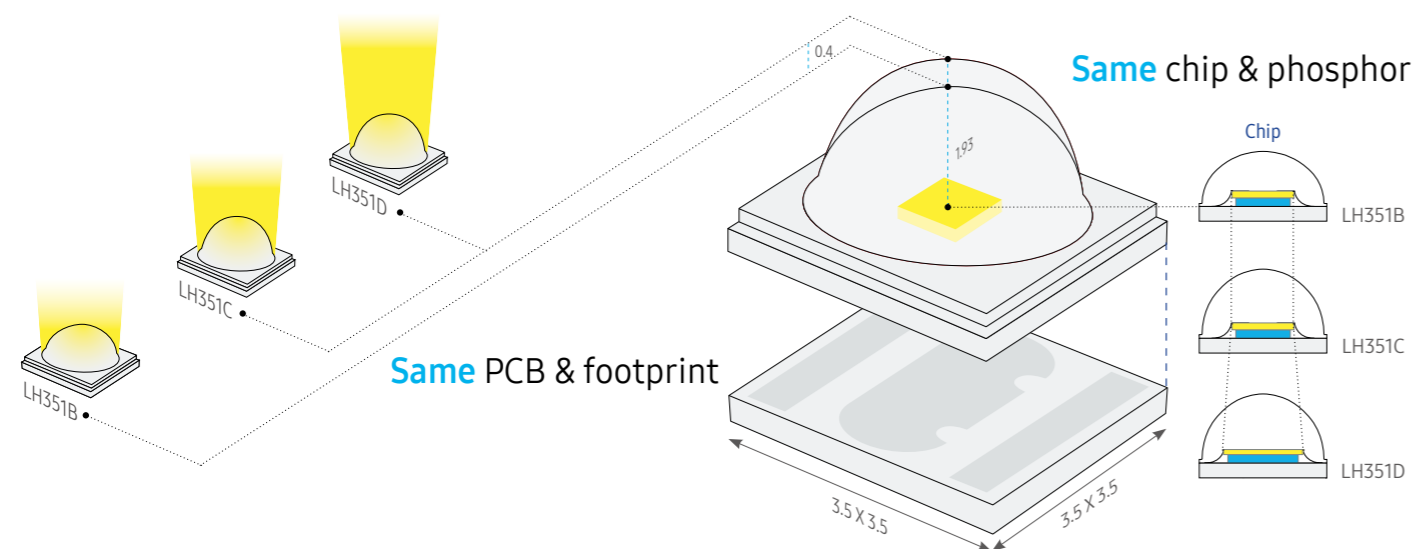


Highly reliable LED component solutions in various types of chip structures, from mid to high power LEDs

Total solution for outdoor lighting



Standard footprints allow for greater design flexibility

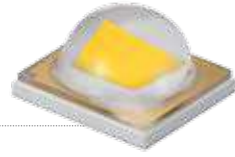


Line-up

Product	Key Features	Efficacy (lm/W)	Lifespan
 LH181A	<ul style="list-style-type: none"> 3W class high power LED Low thermal resistance Wider beam angle than lead-frame type 	●●●●○	●●●●○
 LH181B	<ul style="list-style-type: none"> 3W class high power LED Operates at a maximum current of up to 1.4A The industry-highest efficacy among high power CSP LEDs 	●●●●●	●●●●○
 LH231B	<ul style="list-style-type: none"> 5W class super high power CSP Suitable for highbay lighting, stadium lighting 	●●●●○	●●●●○
 LM301B	<ul style="list-style-type: none"> 0.3W class mid-power LED Highest efficacy: 220lm/W @65mA, 5000K, CRI 80 	●●●●●	●●●●○
 LM302C	<ul style="list-style-type: none"> 0.4W class mid power LED Highest efficacy: 183lm/W @65mA, 5000K, CRI 80 	●●●●●	●●●●○
 LM301Z Plus	<ul style="list-style-type: none"> 0.2W, 3V mid power LED EMC resin for high reliability Standard footprint: 3.0 mm x 3.0mm 	●●●●○	●●●●○
 LM301Z	<ul style="list-style-type: none"> 0.3W class mid power LED EMC resin for high reliability 	●●●●○	●●●●○
 LM302Z	<ul style="list-style-type: none"> 0.9W class mid power LED EMC resin for high reliability 	●●●●○	●●●●○
 LH508A	<ul style="list-style-type: none"> Economic LED solution with high voltage 	●●●●○	●●●●○
 LH351B	<ul style="list-style-type: none"> Standard LED solution for general outdoor applications 	●●●●○	●●●●●
 LH351C	<ul style="list-style-type: none"> Premium LED solution for streetlight 	●●●●○	●●●●●
 LH351D	<ul style="list-style-type: none"> Enables compact & slim fixture with super high efficacy 	●●●●●	●●●●●
 D-series Gen 3	<ul style="list-style-type: none"> Better thermal resistance Industry-leading light efficacy LM80 certified 	●●●●●	●●●●○
 D-series Gen 2	<ul style="list-style-type: none"> Industry-leading light efficacy LM80 certified 	●●●●●	●●●●○
 D-series Gen 1	<ul style="list-style-type: none"> Industry-leading light efficacy LM80 certified 	●●●●○	●●●●○

Ceramic High Power LEDs

LH351B

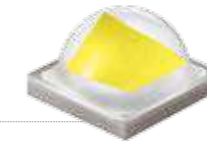


[350mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SPHWH2L3D30CD4W0K3	K1, M1, N1	130	160
		SPHWH2L3D30CD4W0M3	M1, N1, P1	140	170
		SPHWH2L3D30CD4W0N3	N1, P1, Q1	150	180
	3000	SPHWH2L3D30CD4V0M3	M1, N1, P1	140	170
		SPHWH2L3D30CD4V0N3	N1, P1, Q1	150	180
		SPHWH2L3D30CD4U0K3	K1, M1, N1	130	160
	3500	SPHWH2L3D30CD4U0M3	M1, N1, P1	140	170
		SPHWH2L3D30CD4U0N3	N1, P1, Q1	150	180
		SPHWH2L3D30CD4T0N3	N1, P1, Q1	150	180
	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
		SPHWH2L3D30CD4RTQ3	Q1, R1	170	190
		SPHWH2L3D30CD4QTN3	N1, P1, Q1	150	180
	5700	SPHWH2L3D30CD4QTP3	P1, Q1, R1	160	190
		SPHWH2L3D30CD4PTM3	M1, N1, P1	140	170
		SPHWH2L3D30CD4PTN3	N1, P1, Q1	150	180
6500	SPHWH2L3D30CD4PTP3	P1, Q1, R1	160	190	
	SPHWH1L3D30DD4RTM3	M1, N1, P1	140	170	
	SPHWH1L3D30DD4RTN3	N1, P1, Q1	150	180	
75+	5000	SPHWH1L3D30DD4RTP3	P1, Q1, R1	160	190
		SPHWH1L3D30DD4QTM3	M1, N1, P1	140	170
		SPHWH1L3D30DD4QTN3	N1, P1, Q1	150	180
5700	SPHWH1L3D30DD4QTP3	P1, Q1, R1	160	190	
	SPHWH2L3D30ED4Y0G3	G1, H1, J1	100	130	
	SPHWH2L3D30ED4W0J3	J1, K1, M1	120	150	
80+	2700	SPHWH2L3D30ED4W0K3	K1, M1, N1	130	160
		SPHWH2L3D30ED4V0J3	J1, K1, M1	120	150
		SPHWH2L3D30ED4V0K3	K1, M1, N1	130	160
	3000	SPHWH2L3D30ED4V0M3	M1, N1, P1	140	170
		SPHWH2L3D30ED4V0N3	N1, P1, Q1	150	180
		SPHWH2L3D30ED4U0K3	K1, M1, N1	130	160
	3500	SPHWH2L3D30ED4U0M3	M1, N1, P1	140	170
		SPHWH2L3D30ED4T0K3	K1, M1, N1	130	160
		SPHWH2L3D30ED4T0M3	M1, N1, P1	140	170
	4000	SPHWH2L3D30ED4RTM3	M1, N1, P1	140	170
		SPHWH2L3D30ED4RTN3	N1, P1, Q1	150	180
		SPHWH2L3D30ED4QTM3	M1, N1, P1	140	170
	5000	SPHWH2L3D30ED4QTN3	N1, P1, Q1	150	180
		SPHWH2L3D30ED4PQK3	K1, M1, N1	130	160
		SPHWH2L3D30ED4PQM3	M1, N1, P1	140	170
	5700	SPHWH2L3D30ED4PTK3	K1, M1, N1	130	160
		SPHWH2L3D30ED4PTM3	M1, N1, P1	140	170
		SPHWH2L3D30ED4PTN3	N1, P1, Q1	150	180

Ceramic High Power LEDs

LH351C

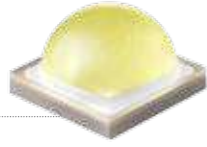


[700mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
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	
	5000	SPHWH2L3D30GD4T0K3	K1, M1, N1	130	160	
	70+	2700	SPHWHTL3D50CE4W0MF	MB, NB, PB	250	310
			SPHWHTL3D50CE4W0NF	NB, PB, QB	270	330
3000		SPHWHTL3D50CE4V0NF	NB, PB, QB	270	330	
		SPHWHTL3D50CE4V0PF	PB, QB, RB	290	350	
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		SPHWHTL3D50CE4RTPF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4RTQF	QB, RB, SB	310	370	
5700		SPHWHTL3D50CE4QTPF	PB, QB, RB	310	370	
		SPHWHTL3D50CE4QTQF	QB, RB, SB	310	370	
6500		SPHWHTL3D50CE4PTPF	PB, QB, RB	290	350	
		SPHWHTL3D50CE4PTQF	QB, RB, SB	310	370	
80+		2700	SPHWHTL3D50EE4W0MF	MB, NB, PB	250	310
		3000	SPHWHTL3D50EE4V0NF	NB, PB, QB	270	330
		3500	SPHWHTL3D50EE4U0NF	NB, PB, QB	270	330
		4000	SPHWHTL3D50EE4T0MF	MB, NB, PB	250	310
			SPHWHTL3D50EE4T0NF	NB, PB, QB	270	330
		5000	SPHWHTL3D50EE4RTNF	NB, PB, QB	270	330
	SPHWHTL3D50EE4RTPF		PB, QB, RB	290	350	
	5700	SPHWHTL3D50EE4QTNF	NB, PB, QB	270	330	
	90+	2700	SPHWHTL3D50GE4W0HF	HB, JB, KB	190	250
			SPHWHTL3D50GE4W0JF	JB, KB, MB	210	270
3000		SPHWHTL3D50GE4V0JF	JB, KB, MB	210	270	
		SPHWHTL3D50GE4U0JF	JB, KB, MB	210	270	
3500		SPHWHTL3D50GE4U0KF	KB, MB, NB	230	290	
		SPHWHTL3D50GE4T0JF	JB, KB, MB	210	270	
4000		SPHWHTL3D50GE4T0KF	KB, MB, NB	230	290	
		SPHWHTL3D50GE4RTKF	KB, MB, NB	230	290	
5000	SPHWHTL3D50GE4RTMF	MB, NB, PB	250	310		

Ceramic High Power LEDs

LH351D



[1050mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
70+	2700	SPHWHTL3DA0CF4W0S6	S2, T2, U2	380	440	
		SPHWHTL3DA0CF4W0T6	T2, U2, V2	400	460	
	3000	SPHWHTL3DA0CF4V0T6	T2, U2, V2	400	460	
		SPHWHTL3DA0CF4V0U6	U2, V2, W2	420	480	
		SPHWHTL3DA0CF4V0V6	V2, W2, Y2	440	500	
		SPHWHTL3DA0CF4V0W6	W2, Y2, Z2	460	520	
	3500	SPHWHTL3DA0CF4U0T6	T2, U2, V2	400	460	
		SPHWHTL3DA0CF4U0U6	U2, V2, W2	420	480	
		SPHWHTL3DA0CF4U0V6	V2, W2, Y2	440	500	
		SPHWHTL3DA0CF4U0W6	W2, Y2, Z2	460	520	
	4000	SPHWHTL3DA0CF4T0U6	U2, V2, W2	420	480	
		SPHWHTL3DA0CF4T0V6	V2, W2, Y2	440	500	
		SPHWHTL3DA0CF4T0W6	W2, Y2, Z2	460	520	
		SPHWHTL3DA0CF4T0Y6	Y2, Z2, 12	480	540	
		SPHWHTL3DA0CF4RTV6	V2, W2, Y2	440	500	
		SPHWHTL3DA0CF4RTW6	W2, Y2, Z2	460	520	
	5000	SPHWHTL3DA0CF4RTY6	Y2, Z2, 12	480	540	
		SPHWHTL3DA0CF4RTZ6	Z2, 12, 22	500	560	
		5700	SPHWHTL3DA0CF4QTV6	V2, W2, Y2	440	500
	SPHWHTL3DA0CF4QTW6		W2, Y2, Z2	460	520	
	SPHWHTL3DA0CF4QTY6		Y2, Z2, 12	480	540	
	6500	SPHWHTL3DA0CF4PTU6	U2, V2, W2	420	480	
		SPHWHTL3DA0CF4PTV6	V2, W2, Y2	440	500	
		SPHWHTL3DA0CF4PTW6	W2, Y2, Z2	460	520	
	80+	2700	SPHWHTL3DA0EF4W0Q6	Q2, R2, S2	340	400
			SPHWHTL3DA0EF4W0R6	R2, S2, T2	360	420
		3000	SPHWHTL3DA0EF4V0R6	R2, S2, T2	360	420
		3500	SPHWHTL3DA0EF4U0R6	R2, S2, T2	360	420
			SPHWHTL3DA0EF4U0S6	S2, T2, U2	380	440
		4000	SPHWHTL3DA0EF4T0S6	S2, T2, U2	380	440
SPHWHTL3DA0EF4T0T6			T2, U2, V2	400	460	
5000		SPHWHTL3DA0EF4RTS6	S2, T2, U2	380	440	
		SPHWHTL3DA0EF4RTT6	T2, U2, V2	400	460	
5300		SPHWHTL3DA0EF4QRT6	T2, U2, V2	400	460	
		SPHWHTL3DA0EF4QRU6	U2, V2, W2	420	480	
5700		SPHWHTL3DA0EF4QTT6	T2, U2, V2	400	460	
		SPHWHTL3DA0EF4QTU6	U2, V2, W2	420	480	
6000		SPHWHTL3DA0EF4PQT6	T2, U2, V2	400	460	
		SPHWHTL3DA0EF4PQU6	U2, V2, W2	420	480	
6500	SPHWHTL3DA0EF4PTT6	T2, U2, V2	400	460		
	SPHWHTL3DA0EF4PTU6	U2, V2, W2	420	480		

Ceramic High Power LEDs

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
90+	2700	SPHWHTL3DA0GF4W0M6	M2, N2, P2	280	340
		SPHWHTL3DA0GF4W0N6	N2, P2, Q2	300	360
	3000	SPHWHTL3DA0GF4V0N6	N2, P2, Q2	300	360
		SPHWHTL3DA0GF4V0P6	P2, Q2, R2	320	380
	3500	SPHWHTL3DA0GF4U0N6	N2, P2, Q2	300	360
		SPHWHTL3DA0GF4U0P6	P2, Q2, R2	320	380
	4000	SPHWHTL3DA0GF4T0P6	P2, Q2, R2	320	380
		SPHWHTL3DA0GF4T0Q6	Q2, R2, S2	340	400
	5000	SPHWHTL3DA0GF4RTR6	R2, S2, T2	360	420
		SPHWHTL3DA0GF4RTS6	S2, T2, U2	380	440
	6000	SPHWHTL3DA0GF4PQR6	R2, S2, T2	360	420
		SPHWHTL3DA0GF4PQS6	S2, T2, U2	380	440

LH181A



[350mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTF1HPLAW0J34E	J1, K1, M1	120	150
	3000	SCP7VTF1HPLAV0K34E	K1, M1, N1	130	160
	3500	SCP7UTF1HPLAU0K34E	K1, M1, N1	130	160
	4000	SCP7TTF1HPLAT0M34E	M1, N1, P1	140	170
	5000	SCP7RTF1HPLARTM34E	M1, N1, P1	140	170
	5700	SCP7QTF1HPLAQM34E	M1, N1, P1	140	170
	6500	SCP7PTF1HPLAPT34E	M1, N1, P1	140	170
80+	2700	SCP8WTF1HPLAW0J34E	J1, K1, M1	120	150
	3000	SCP8VTF1HPLAV0K34E	K1, M1, N1	130	160
	3500	SCP8UTF1HPLAU0K34E	K1, M1, N1	130	160
	4000	SCP8TTF1HPLAT0K34E	K1, M1, N1	130	160
	5000	SCP8RTF1HPLARTK34E	K1, M1, N1	130	160
	5700	SCP8QTF1HPLAQT34E	K1, M1, N1	130	160
	6500	SCP8PTF1HPLAPT34E	K1, M1, N1	130	160
90+	3000	SCP9VTF1HPLAV0G34E	G1, H1, J1	100	130
	4000	SCP9TTF1HPLAT0G34E	G1, H1, J1	100	130

LH181B

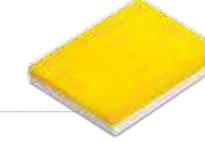


[350mA, 85°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTF1HEL1W◇M34E	M1, N1, P1	140	170
	3000	SCP7VTF1HEL1V◇M34E	M1, N1, P1	140	170
	3500	SCP7UTF1HEL1U◇N34E	N1, P1, Q1	150	180
	4000	SCP7TTF1HEL1T◇N34E	N1, P1, Q1	150	180
	5000	SCP7RTF1HEL1R◇P34E	P1, Q1, R1	160	190
	5700	SCP7QTF1HEL1Q◇P34E	P1, Q1, R1	160	190
	6500	SCP7PTF1HEL1P◇N34E	N1, P1, Q1	150	180
80+	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
	5000	SCP8RTF1HEL1R◇N34E	N1, P1, Q1	150	180
	5700	SCP8QTF1HEL1Q◇N34E	N1, P1, Q1	150	180
	6500	SCP8PTF1HEL1P◇M34E	M1, N1, P1	140	170
90+	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

LH231B



[700mA, 85°C]

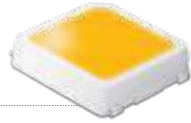
CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	2700	SCP7WTJ5HEL1W☆MF6E	MB, NB, PB	250	310
	3000	SCP7VTJ5HEL1V☆NF6E	NB, PB, QB	270	330
	3500	SCP7UTJ5HEL1U☆PF6E	PB, QB, RB	290	350
	4000	SCP7TTJ5HEL1T☆PF6E	PB, QB, RB	290	350
	5000	SCP7RTJ5HEL1R☆QF6E	QB, RB, SB	310	370
	5700	SCP7QTJ5HEL1Q☆QF6E	QB, RB, SB	310	370
	6500	SCP7PTJ5HEL1P☆PF6E	PB, QB, RB	290	350
80+	2700	SCP8WTJ5HEL1W☆KF6E	KB, MB, NB	230	290
	3000	SCP8VTJ5HEL1V☆MF6E	MB, NB, PB	250	310
	3500	SCP8UTJ5HEL1U☆MF6E	MB, NB, PB	250	310
	4000	SCP8TTJ5HEL1T☆NF6E	NB, PB, QB	270	330
	5000	SCP8RTJ5HEL1R☆NF6E	NB, PB, QB	270	330
	5700	SCP8QTJ5HEL1Q☆NF6E	NB, PB, QB	270	330
	6500	SCP8PTJ5HEL1P☆GF6E	GB, HB, JB	170	230
90+	3000	SCP9VTJ5HEL1V☆GF6E	GB, HB, JB	170	230
	3500	SCP9UTJ5HEL1U☆HF6E	HB, JB, KB	190	250
	4000	SCP9TTJ5HEL1T☆HF6E	HB, JB, KB	190	250

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

EMC Mid Power LEDs



LM301B

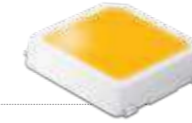


[65mA, 25°C]

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	
2700	SPMWH32AMD5XAW0S0	SH	32	34		
		SJ	34	36		
		SK	36	38		
		SPMWH32AMD5XAW0SH	SH	32	34	
			SPMWH32AMD5XAW0SJ	SJ	34	36
					SJ	34
3000	SPMWH32AMD5XAV0S0	SJ			34	36
		SK	36		38	
		SL	38	40		
		SPMWH32AMD5XAV0SJ	SJ	34	36	
			SPMWH32AMD5XAV0SK	SK	36	38
				SJ	34	36
3500	SPMWH32AMD5XAU0S0	SK		36	38	
		SL	38	40		
		SK	36	38		
		SPMWH32AMD5XAU0SK	SK	36	38	
			SPMWH32AMD5XAU0SL	SL	38	40
				SK	36	38
80+	4000	SPMWH32AMD5XAT0S0		SL	38	40
			SM	40	42	
			SK	36	38	
		SPMWH32AMD5XAR0S0	SL	38	40	
			SM	40	42	
			SK	36	38	
5000	SPMWH32AMD5XAR0SK	SK	36	38		
		SL	38	40		
		SK	36	38		
		SPMWH32AMD5XAQ0S0	SL	38	40	
			SM	40	42	
			SK	36	38	
5700	SPMWH32AMD5XAQ0SK	SK	36	38		
		SL	38	40		
		SK	36	38		
		SPMWH32AMD5XAP0S0	SL	38	40	
			SM	40	42	
			SK	36	38	
6500	SPMWH32AMD5XAP0SK	SK	36	38		
		SL	38	40		
		SL	38	40		
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		

EMC Mid Power LEDs

LM302C



[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWHT32BMD3YBV0S0	SF	62	66
			SG	66	70
			SH	70	74
	3500	SPMWHT32BMD3YBU0S0	SF	62	66
			SG	66	70
			SH	70	74
	4000	SPMWHT32BMD3YBT0S0	SG	66	70
			SH	70	74
			SJ	74	78
	5000	SPMWHT32BMD3YBR0S0	SG	66	70
			SH	70	74
			SJ	74	78
2700	SPMWHT32BMD5YBW0S0	SD	54	58	
		SE	58	62	
		SF	62	66	
3000	SPMWHT32BMD5YBV0S0	SD	54	58	
		SE	58	62	
		SF	62	66	
3500	SPMWHT32BMD5YBU0S0	SE	58	62	
		SF	62	66	
		SG	66	70	
4000	SPMWHT32BMD5YBT0S0	SE	58	62	
		SF	62	66	
		SG	66	70	
5000	SPMWHT32BMD5YBR0S0	SF	62	66	
		SG	66	70	
		SH	70	74	
5700	SPMWHT32BMD5YBQ0S0	SE	58	62	
		SF	62	66	
		SG	66	70	
6500	SPMWHT32BMD5YBP0S0	SE	58	62	
		SF	62	66	
		SG	66	70	
90+	2700	SPMWHT32BMD7YBW0S0	SB	46	50
			SC	50	54
	3000	SPMWHT32BMD7YBV0S0	SB	46	50
			SC	50	54
	3500	SPMWHT32BMD7YBU0S0	SD	54	58
			SB	46	50
	4000	SPMWHT32BMD7YBT0S0	SC	50	54
			SD	54	58
	5000	SPMWHT32BMD7YBR0S0	SC	50	54
			SD	54	58
	5700	SPMWHT32BMD7YBQ0S0	SE	58	62
			SC	50	54
6500	SPMWHT32BMD7YBP0S0	SD	54	58	
		SE	58	62	

LM301Z Plus



[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
80+	2700	SPMWH3326MP5WAW0S0	SH	32	34
			SJ	34	36
	3000	SPMWH3326MP5WAV0S0	SH	32	34
			SJ	34	36
	3500	SPMWH3326MP5WAU0S0	SH	32	34
			SJ	34	36
	4000	SPMWH3326MP5WAT0S0	SJ	34	36
			SK	36	38
	5000	SPMWH3326MP5WAR0S0	SJ	34	36
			SK	36	38
	5700	SPMWH3326MP5WAQ0S0	SJ	34	36
			SK	36	38
	6500	SPMWH3326MP5WAP0S0	SH	32	34
			SJ	34	36

LM301Z



[65mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)			
			Bin	Min.	Max.	
70+	3000	SPMWH3326MD3WAV0SA	SA	30.5	33.5	
	3500	SPMWH3326MD3WAU0SA	SA	31.5	34.5	
	4000	SPMWH3326MD3WAT0SA	SA	32.5	35.5	
	5000	SPMWH3326MD3WAR0SA	SA	32.5	35.5	
	2200	SPMWH3326MD5WAY0SA	SA	26.0	29.0	
80+	2500	SPMWH3326MD5WAX0SA	SA	28.0	31.0	
	2700	SPMWH3326MD5WAW0SA	SA	29.0	32.0	
	3000	SPMWH3326MD5WAV0SA	SA	30.0	33.0	
	3500	SPMWH3326MD5WAU0SA	SA	30.5	33.5	
	4000	SPMWH3326MD5WAT0SA	SA	31.0	34.0	
	5000	SPMWH3326MD5WAR0SA	SA	33.0	36.0	
	5700	SPMWH3326MD5WAQ0SA	SA	31.0	34.0	
	6500	SPMWH3326MD5WAP0SA	SA	31.0	34.0	
	90+	2700	SPMWH3326MD7WAW0SA	SA	24.0	27.0
		3000	SPMWH3326MD7WAV0SA	SA	24.5	27.5
		3500	SPMWH3326MD7WAU0SA	SA	25.5	28.5
		4000	SPMWH3326MD7WAT0SA	SA	26.0	29.0
		5000	SPMWH3326MD7WAR0SA	SA	26.5	29.5
		5700	SPMWH3326MD7WAQ0SA	SA	26.5	29.5
6500		SPMWH3326MD7WAP0SA	SA	26.0	29.0	

LM302Z



[150mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Max.
70+	3000	SPMWH3326FD3GBV0SA	SA	129	139
	3500	SPMWH3326FD3GBU0SA	SA	132	142
	4000	SPMWH3326FD3GBT0SA	SA	137	147
	5000	SPMWH3326FD3GBR0SA	SA	137	147
	5700	SPMWH3326FD3GBQ0SA	SA	137	147
80+	2700	SPMWH3326FD5GBW0SA	SA	122	132
	3000	SPMWH3326FD5GBV0SA	SA	123	133
	3500	SPMWH3326FD5GBU0SA	SA	126	136
	4000	SPMWH3326FD5GBT0SA	SA	128	138
	5000	SPMWH3326FD5GBR0SA	SA	130	140
	5700	SPMWH3326FD5GBQ0SA	SA	128	138
	6500	SPMWH3326FD5GBP0SA	SA	127	137
90+	2700	SPMWH3326FD7GBW0SA	SA	102	112
	3000	SPMWH3326FD7GBV0SA	SA	105	115
	3500	SPMWH3326FD7GBU0SA	SA	107	117
	4000	SPMWH3326FD7GBT0SA	SA	111	121
	5000	SPMWH3326FD7GBR0SA	SA	112	122
	5700	SPMWH3326FD7GBQ0SA	SA	111	121
	6500	SPMWH3326FD7GBP0SA	SA	111	121

LH508A





[160mA, 25°C]

CRI	CCT (K)	Part Number	Luminous Flux (lm)		
			Bin	Min.	Typ.
70+	3000	SPHWH1L5N403XEV5A1	A1	521	572
	4000	SPHWH1L5N403XET5A1	A1	558	610
	5000	SPHWH1L5N403XER5A1	A1	558	610
	5700	SPHWH1L5N403XEQ5A1	A1	558	610
	2700	SPHWH1L5N405XEW5A1	A1	459	504
80+	3000	SPHWH1L5N405XEV5A1	A1	473	520
	4000	SPHWH1L5N405XET5A1	A1	521	550
	5000	SPHWH1L5N405XER5A1	A1	521	550
	2700	SPHWH1L5N407XEW5A1	A1	402	429
90+	3000	SPHWH1L5N407XEV5A1	A1	416	444
	4000	SPHWH1L5N407XET5A1	A1	443	473

D-series Gen 3

T _j =85°C	LC016D Gen 3	LC019D Gen 3	LC026D Gen 3	LC033D Gen 3	LC040D Gen 3	LC060D Gen 3	LC080D Gen 3
LES	14.5mm			22 mm			
Typical	33.8V				50.7V		
	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.	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)
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)	
 LC016D Gen 3	70+	3000	MacAdam 3step	SPHWAHDNE23YZV3D3	2697	176	450mA 33.8V
		4000	MacAdam 3step	SPHWAHDNE23YZT3D3	2747	180	
		5000	MacAdam 3step	SPHWAHDNE23YZR3D3	2797	183	
	80+	2700	MacAdam 2step	SPHWAHDNE25YZW2D3	2376	156	
			MacAdam 3step	SPHWAHDNE25YZW3D3			
		3000	MacAdam 2step	SPHWAHDNE25YZV2D3	2497	164	
			MacAdam 3step	SPHWAHDNE25YZV3D3			
		3500	MacAdam 2step	SPHWAHDNE25YZU2D3	2570	169	
			MacAdam 3step	SPHWAHDNE25YZU3D3			
		4000	MacAdam 2step	SPHWAHDNE25YZT2D3	2622	172	
			MacAdam 3step	SPHWAHDNE25YZT3D3			
		5000	MacAdam 3step	SPHWAHDNE25YZR3D3	2644	174	
			5700	MacAdam 3step	SPHWAHDNE25YZQ3D3	2644	
		6500	MacAdam 3step	SPHWAHDNE25YZP3D3	2622	172	
			2700	MacAdam 2step	SPHWAHDNE27YZW2D3	2033	
	3000	MacAdam 3step		SPHWAHDNE27YZW3D3	2139	141	
		MacAdam 2step	SPHWAHDNE27YZV2D3				
	3500	MacAdam 3step	SPHWAHDNE27YZV3D3	2203	145		
		MacAdam 2step	SPHWAHDNE27YZU2D3				
	4000	MacAdam 3step	SPHWAHDNE27YZU3D3	2248	148		
		MacAdam 2step	SPHWAHDNE27YZT2D3				
5000	MacAdam 3step	SPHWAHDNE27YZT3D3	2267	149			
	MacAdam 2step	SPHWAHDNE27YZR3D3					


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 3step	SPHWAHDNF23YZV3D3	3220	175	540mA 33.8V
		4000	MacAdam 3step	SPHWAHDNF23YZT3D3	3280	179	
		5000	MacAdam 3step	SPHWAHDNF23YZR3D3	3339	182	
	80+	2700	MacAdam 2step	SPHWAHDNF25YZW2D3	2837	155	
			MacAdam 3step	SPHWAHDNF25YZW3D3			
		3000	MacAdam 2step	SPHWAHDNF25YZV2D3	2982	163	
			MacAdam 3step	SPHWAHDNF25YZV3D3			
		3500	MacAdam 2step	SPHWAHDNF25YZU2D3	3069	168	
			MacAdam 3step	SPHWAHDNF25YZU3D3			
		4000	MacAdam 2step	SPHWAHDNF25YZT2D3	3130	171	
			MacAdam 3step	SPHWAHDNF25YZT3D3			
		5000	MacAdam 3step	SPHWAHDNF25YZR3D3	3157	173	
			5700	MacAdam 3step	SPHWAHDNF25YZQ3D3	3157	
		6500	MacAdam 3step	SPHWAHDNF25YZP3D3	3130	171	
			2700	MacAdam 2step	SPHWAHDNF27YZW2D3	2428	
	MacAdam 3step	SPHWAHDNF27YZW3D3					
	3000	MacAdam 2step	SPHWAHDNF27YZV2D3	2554	140		
		MacAdam 3step	SPHWAHDNF27YZV3D3				
	3500	MacAdam 2step	SPHWAHDNF27YZU2D3	2630	144		
		MacAdam 3step	SPHWAHDNF27YZU3D3				
	4000	MacAdam 2step	SPHWAHDNF27YZT2D3	2684	147		
MacAdam 3step		SPHWAHDNF27YZT3D3					
5000	MacAdam 3step	SPHWAHDNF27YZR3D3	2707	148			
	70+	3000	MacAdam 3step	SPHWAHDNG23YZV3D3	4230	174	
4000		MacAdam 3step	SPHWAHDNG23YZT3D3	4308	177		
5000		MacAdam 3step	SPHWAHDNG23YZR3D3	4387	180		
80+	2700	MacAdam 2step	SPHWAHDNG25YZW2D3	3727	153		
		MacAdam 3step	SPHWAHDNG25YZW3D3				
	3000	MacAdam 2step	SPHWAHDNG25YZV2D3	3917	161		
		MacAdam 3step	SPHWAHDNG25YZV3D3				
	3500	MacAdam 2step	SPHWAHDNG25YZU2D3	4032	166		
		MacAdam 3step	SPHWAHDNG25YZU3D3				
	4000	MacAdam 2step	SPHWAHDNG25YZT2D3	4112	169		
		MacAdam 3step	SPHWAHDNG25YZT3D3				
	5000	MacAdam 3step	SPHWAHDNG25YZR3D3	4147	170		
		5700	MacAdam 3step	SPHWAHDNG25YZQ3D3	4147	170	
	6500	MacAdam 3step	SPHWAHDNG25YZP3D3	4112	169		
		2700	MacAdam 2step	SPHWAHDNG27YZW2D3	3190	131	
MacAdam 3step	SPHWAHDNG27YZW3D3						
3000	MacAdam 2step	SPHWAHDNG27YZV2D3	3355	138			
	MacAdam 3step	SPHWAHDNG27YZV3D3					
3500	MacAdam 2step	SPHWAHDNG27YZU2D3	3455	142			
	MacAdam 3step	SPHWAHDNG27YZU3D3					
4000	MacAdam 2step	SPHWAHDNG27YZT2D3	3526	145			
	MacAdam 3step	SPHWAHDNG27YZT3D3					
5000	MacAdam 3step	SPHWAHDNG27YZR3D3	3556	146			


Chip-on-Board LEDs

Chip-on-Board LEDs

Component


Component



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 3step	SPHWAHDNH23YZV3D3	5235	172	900mA 33.8V
		4000	MacAdam 3step	SPHWAHDNH23YZT3D3	5332	175	
		5000	MacAdam 3step	SPHWAHDNH23YZR3D3	5429	178	
	80+	2700	MacAdam 2step	SPHWAHDNH25YZW2D3	4612	152	
			MacAdam 3step	SPHWAHDNH25YZW3D3			
		3000	MacAdam 2step	SPHWAHDNH25YZV2D3	4847	159	
			MacAdam 3step	SPHWAHDNH25YZV3D3			
		3500	MacAdam 2step	SPHWAHDNH25YZU2D3	4989	164	
			MacAdam 3step	SPHWAHDNH25YZU3D3			
	4000	MacAdam 2step	SPHWAHDNH25YZT2D3	5089	167		
		MacAdam 3step	SPHWAHDNH25YZT3D3				
	90+	5000	MacAdam 3step	SPHWAHDNH25YZQ3D3	5132	169	
			MacAdam 3step	SPHWAHDNH25YZP3D3			
		2700	MacAdam 2step	SPHWAHDNH27YZW2D3	3947	130	
			MacAdam 3step	SPHWAHDNH27YZW3D3			
		3000	MacAdam 2step	SPHWAHDNH27YZV2D3	4152	136	
			MacAdam 3step	SPHWAHDNH27YZV3D3			
	3500	MacAdam 2step	SPHWAHDNH27YZU2D3	4276	141		
MacAdam 3step		SPHWAHDNH27YZU3D3					
4000	MacAdam 2step	SPHWAHDNH27YZT2D3	4364	143			
	MacAdam 3step	SPHWAHDNH27YZT3D3					
5000	MacAdam 3step	SPHWAHDNH27YZR3D3	4401	145			
	MacAdam 3step	SPHWAHDNK23YZV3D3			6440	176	
70+	4000	MacAdam 3step	SPHWAHDNK23YZT3D3	6560			180
	5000	MacAdam 3step	SPHWAHDNK23YZR3D3	6679	183		
	2700	MacAdam 2step	SPHWAHDNK25YZW2D3	5675	155		
MacAdam 3step		SPHWAHDNK25YZW3D3					
80+	3000	MacAdam 2step	SPHWAHDNK25YZV2D3	5963	163		
		MacAdam 3step	SPHWAHDNK25YZV3D3				
	3500	MacAdam 2step	SPHWAHDNK25YZU2D3	6138	168		
		MacAdam 3step	SPHWAHDNK25YZU3D3				
	4000	MacAdam 2step	SPHWAHDNK25YZT2D3	6261	172		
		MacAdam 3step	SPHWAHDNK25YZT3D3				
5000	MacAdam 3step	SPHWAHDNK25YZR3D3	6313	173			
	MacAdam 3step	SPHWAHDNK25YZQ3D3			6313	173	
90+	6500	MacAdam 3step	SPHWAHDNK25YZP3D3	6261			172
		MacAdam 3step	SPHWAHDNK27YZW2D3		4856	133	
	2700	MacAdam 2step	SPHWAHDNK27YZW2D3	4856			133
		MacAdam 3step	SPHWAHDNK27YZW3D3				
	3000	MacAdam 2step	SPHWAHDNK27YZV2D3	5108	140		
		MacAdam 3step	SPHWAHDNK27YZV3D3				
3500	MacAdam 2step	SPHWAHDNK27YZU2D3	5260	144			
	MacAdam 3step	SPHWAHDNK27YZU3D3					
4000	MacAdam 2step	SPHWAHDNK27YZT2D3	5369	147			
	MacAdam 3step	SPHWAHDNK27YZT3D3					
5000	MacAdam 3step	SPHWAHDNK27YZR3D3	5415	148			
	MacAdam 3step	SPHWAHDNK27YZR3D3					

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 3step	SPHWAHDNL231ZV3D3	9518	174	1080mA 50.7V
		4000	MacAdam 3step	SPHWAHDNL231ZT3D3	9694	177	
		5000	MacAdam 3step	SPHWAHDNL231ZR3D3	9870	180	
	80+	2700	MacAdam 2step	SPHWAHDNL251ZW2D3	8386	153	
			MacAdam 3step	SPHWAHDNL251ZW3D3			
		3000	MacAdam 2step	SPHWAHDNL251ZV2D3	8813	161	
			MacAdam 3step	SPHWAHDNL251ZV3D3			
		3500	MacAdam 2step	SPHWAHDNL251ZU2D3	9071	166	
			MacAdam 3step	SPHWAHDNL251ZU3D3			
	4000	MacAdam 2step	SPHWAHDNL251ZT2D3	9253	169		
		MacAdam 3step	SPHWAHDNL251ZT3D3				
	90+	5000	MacAdam 3step	SPHWAHDNL251ZR3D3	9330	170	
			MacAdam 3step	SPHWAHDNL251ZQ3D3			
		2700	MacAdam 2step	SPHWAHDNL271ZW2D3	7177	131	
			MacAdam 3step	SPHWAHDNL271ZW3D3			
		3000	MacAdam 2step	SPHWAHDNL271ZV2D3	7549	138	
			MacAdam 3step	SPHWAHDNL271ZV3D3			
	3500	MacAdam 2step	SPHWAHDNL271ZU2D3	7774	142		
MacAdam 3step		SPHWAHDNL271ZU3D3					
4000	MacAdam 2step	SPHWAHDNL271ZT2D3	7934	145			
	MacAdam 3step	SPHWAHDNL271ZT3D3					
5000	MacAdam 3step	SPHWAHDNL271ZR3D3	8002	146			
	MacAdam 3step	SPHWAHDNL271ZR3D3			14115	172	
70+	4000	MacAdam 3step	SPHWAHDNM231ZT3D3	14376			175
	5000	MacAdam 3step	SPHWAHDNM231ZR3D3	14637	178		
	2700	MacAdam 2step	SPHWAHDNM251ZW2D3	12437	151		
MacAdam 3step		SPHWAHDNM251ZW3D3					
80+	3000	MacAdam 2step	SPHWAHDNM251ZV2D3	13069	159		
		MacAdam 3step	SPHWAHDNM251ZV3D3				
	3500	MacAdam 2step	SPHWAHDNM251ZU2D3	13452	164		
		MacAdam 3step	SPHWAHDNM251ZU3D3				
	4000	MacAdam 2step	SPHWAHDNM251ZT2D3	13721	167		
		MacAdam 3step	SPHWAHDNM251ZT3D3				
5000	MacAdam 3step	SPHWAHDNM251ZR3D3	13836	168			
	MacAdam 3step	SPHWAHDNM251ZQ3D3			13836	168	
90+	6500	MacAdam 3step	SPHWAHDNM251ZP3D3	13721			167
		MacAdam 3step	SPHWAHDNM271ZW2D3		10643	130	
	2700	MacAdam 2step	SPHWAHDNM271ZW2D3	10643			130
		MacAdam 3step	SPHWAHDNM271ZW3D3				
	3000	MacAdam 2step	SPHWAHDNM271ZV2D3	11195	136		
		MacAdam 3step	SPHWAHDNM271ZV3D3				
3500	MacAdam 2step	SPHWAHDNM271ZU2D3	11529	140			
	MacAdam 3step	SPHWAHDNM271ZU3D3					
4000	MacAdam 2step	SPHWAHDNM271ZT2D3	11766	143			
	MacAdam 3step	SPHWAHDNM271ZT3D3					
5000	MacAdam 3step	SPHWAHDNM271ZR3D3	11867	144			
	MacAdam 3step	SPHWAHDNM271ZR3D3					

D-series Gen 2

T _j =85°C	LC016D Gen 2	LC019D Gen 2	LC026D Gen 2	LC033D Gen 2	LC040D Gen 2	LC060D Gen 2	LC080D Gen 2
LES	14.5mm			22 mm			
Typical	34.6 V				52 V		
	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.	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)
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)	
 LC016D Gen 2	70+	3000	MacAdam 3step	SPHWAHDNE23YZV3D2	2617	168	450mA 34.6V
		4000	MacAdam 3step	SPHWAHDNE23YZT3D2	2701	173	
		5000	MacAdam 3step	SPHWAHDNE23YZR3D2	2742	176	
	80+	2700	MacAdam 2step	SPHWAHDNE25YZW2D2	2293	147	
			MacAdam 3step	SPHWAHDNE25YZW3D2			
		3000	MacAdam 2step	SPHWAHDNE25YZV2D2	2423	156	
			MacAdam 3step	SPHWAHDNE25YZV3D2			
		3500	MacAdam 2step	SPHWAHDNE25YZU2D2	2513	161	
			MacAdam 3step	SPHWAHDNE25YZU3D2			
	4000	MacAdam 2step	SPHWAHDNE25YZT2D2	2558	164		
		MacAdam 3step	SPHWAHDNE25YZT3D2				
	90+	5000	MacAdam 3step	SPHWAHDNE25YZR3D2	2581	166	
		5700	MacAdam 3step	SPHWAHDNE25YZQ3D2	2581	166	
		6500	MacAdam 3step	SPHWAHDNE25YZP3D2	2558	164	
	90+	2700	MacAdam 2step	SPHWAHDNE27YZW2D2	1967	126	
			MacAdam 3step	SPHWAHDNE27YZW3D2			
		3000	MacAdam 2step	SPHWAHDNE27YZV2D2	2084	134	
			MacAdam 3step	SPHWAHDNE27YZV3D2			
		3500	MacAdam 2step	SPHWAHDNE27YZU2D2	2146	138	
			MacAdam 3step	SPHWAHDNE27YZU3D2			
		4000	MacAdam 2step	SPHWAHDNE27YZT2D2	2189	141	
MacAdam 3step			SPHWAHDNE27YZT3D2				
5000		MacAdam 3step	SPHWAHDNE27YZR3D2	2209	142		


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 3step	SPHWAHDNF23YZV3D2	3107	166	540mA 34.6V
		4000	MacAdam 3step	SPHWAHDNF23YZT3D2	3207	172	
		5000	MacAdam 3step	SPHWAHDNF23YZR3D2	3256	174	
	80+	2700	MacAdam 2step	SPHWAHDNF25YZW2D2	2728	146	
			MacAdam 3step	SPHWAHDNF25YZW3D2			
		3000	MacAdam 2step	SPHWAHDNF25YZV2D2	2877	154	
			MacAdam 3step	SPHWAHDNF25YZV3D2			
		3500	MacAdam 2step	SPHWAHDNF25YZU2D2	2965	159	
			MacAdam 3step	SPHWAHDNF25YZU3D2			
	4000	MacAdam 2step	SPHWAHDNF25YZT2D2	3026	162		
		MacAdam 3step	SPHWAHDNF25YZT3D2				
	90+	5000	MacAdam 3step	SPHWAHDNF25YZR3D2	3059	164	
		5700	MacAdam 3step	SPHWAHDNF25YZQ3D2	3059	164	
		6500	MacAdam 3step	SPHWAHDNF25YZP3D2	3026	162	
	90+	2700	MacAdam 2step	SPHWAHDNF27YZW2D2	2336	125	
			MacAdam 3step	SPHWAHDNF27YZW3D2			
		3000	MacAdam 2step	SPHWAHDNF27YZV2D2	2449	131	
			MacAdam 3step	SPHWAHDNF27YZV3D2			
		3500	MacAdam 2step	SPHWAHDNF27YZU2D2	2539	136	
			MacAdam 3step	SPHWAHDNF27YZU3D2			
		4000	MacAdam 2step	SPHWAHDNF27YZT2D2	2594	139	
MacAdam 3step			SPHWAHDNF27YZT3D2				
90+		5000	MacAdam 3step	SPHWAHDNF27YZR3D2	2596	139	
	5700	MacAdam 3step	SPHWAHDNF27YZQ3D2	2596	139		
	6500	MacAdam 3step	SPHWAHDNF27YZP3D2	2596	139		
 LC026D Gen 2	70+	3000	MacAdam 3step	SPHWAHDNG23YZV3D2	4063	163	720mA 34.6V
		4000	MacAdam 3step	SPHWAHDNG23YZT3D2	4193	168	
		5000	MacAdam 3step	SPHWAHDNG23YZR3D2	4258	171	
	80+	2700	MacAdam 2step	SPHWAHDNG25YZW2D2	3580	144	
			MacAdam 3step	SPHWAHDNG25YZW3D2			
		3000	MacAdam 2step	SPHWAHDNG25YZV2D2	3762	151	
			MacAdam 3step	SPHWAHDNG25YZV3D2			
		3500	MacAdam 2step	SPHWAHDNG25YZU2D2	3872	155	
			MacAdam 3step	SPHWAHDNG25YZU3D2			
	4000	MacAdam 2step	SPHWAHDNG25YZT2D2	3950	159		
		MacAdam 3step	SPHWAHDNG25YZT3D2				
	90+	5000	MacAdam 3step	SPHWAHDNG25YZR3D2	3983	160	
		5700	MacAdam 3step	SPHWAHDNG25YZQ3D2	3983	160	
		6500	MacAdam 3step	SPHWAHDNG25YZP3D2	3950	159	
	90+	2700	MacAdam 2step	SPHWAHDNG27YZW2D2	3064	123	
			MacAdam 3step	SPHWAHDNG27YZW3D2			
		3000	MacAdam 2step	SPHWAHDNG27YZV2D2	3223	129	
			MacAdam 3step	SPHWAHDNG27YZV3D2			
		3500	MacAdam 2step	SPHWAHDNG27YZU2D2	3319	133	
			MacAdam 3step	SPHWAHDNG27YZU3D2			
		4000	MacAdam 2step	SPHWAHDNG27YZT2D2	3387	136	
MacAdam 3step			SPHWAHDNG27YZT3D2				
5000		MacAdam 3step	SPHWAHDNG27YZR3D2	3416	137		


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Component

Component



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 3step	SPHWAHDNG23YZV3D2	5014	161	900mA 34.6V
		4000	MacAdam 3step	SPHWAHDNG23YZT3D2	5175	166	
		5000	MacAdam 3step	SPHWAHDNG23YZR3D2	5255	169	
	80+	2700	MacAdam 2step	SPHWAHDNH25YZW2D2	4418	142	
			MacAdam 3step	SPHWAHDNH25YZW3D2			
		3000	MacAdam 2step	SPHWAHDNH25YZV2D2	4643	149	
			MacAdam 3step	SPHWAHDNH25YZV3D2			
		3500	MacAdam 2step	SPHWAHDNH25YZU2D2	4779	153	
			MacAdam 3step	SPHWAHDNH25YZU3D2			
		4000	MacAdam 2step	SPHWAHDNH25YZT2D2	4875	157	
			MacAdam 3step	SPHWAHDNH25YZT3D2			
		5000	MacAdam 3step	SPHWAHDNH25YZR3D2	4916	158	
	5700		MacAdam 3step	SPHWAHDNH25YZQ3D2	4916	158	
	6500	MacAdam 3step	SPHWAHDNH25YZP3D2	4875	157		
	90+	2700	MacAdam 2step	SPHWAHDNH27YZW2D2	3781	121	
			MacAdam 3step	SPHWAHDNH27YZW3D2			
		3000	MacAdam 2step	SPHWAHDNH27YZV2D2	3977	128	
			MacAdam 3step	SPHWAHDNH27YZV3D2			
3500		MacAdam 2step	SPHWAHDNH27YZU2D2	4096	132		
		MacAdam 3step	SPHWAHDNH27YZU3D2				
4000		MacAdam 2step	SPHWAHDNH27YZT2D2	4180	134		
		MacAdam 3step	SPHWAHDNH27YZT3D2				
5000		MacAdam 3step	SPHWAHDNH27YZR3D2	4216	135		
70+	3000	MacAdam 3step	SPHWAHDNK23YZV3D2	6304	169		
	4000	MacAdam 3step	SPHWAHDNK23YZT3D2	6506	174		
	5000	MacAdam 3step	SPHWAHDNK23YZR3D2	6607	177		
80+	2700	MacAdam 2step	SPHWAHDNK25YZW2D2	5547	148		
		MacAdam 3step	SPHWAHDNK25YZW3D2				
	3000	MacAdam 2step	SPHWAHDNK25YZV2D2	5837	156		
		MacAdam 3step	SPHWAHDNK25YZV3D2				
	3500	MacAdam 2step	SPHWAHDNK25YZU2D2	6016	161		
		MacAdam 3step	SPHWAHDNK25YZU3D2				
	4000	MacAdam 2step	SPHWAHDNK25YZT2D2	6146	164		
		MacAdam 3step	SPHWAHDNK25YZT3D2				
	5000	MacAdam 3step	SPHWAHDNK25YZR3D2	6175	165		
5700	MacAdam 3step	SPHWAHDNK25YZQ3D2	6205	166			
6500	MacAdam 3step	SPHWAHDNK25YZP3D2	6138	164			
90+	2700	MacAdam 2step	SPHWAHDNK27YZW2D2	4755	127		
		MacAdam 3step	SPHWAHDNK27YZW3D2				
	3000	MacAdam 2step	SPHWAHDNK27YZV2D2	5024	134		
		MacAdam 3step	SPHWAHDNK27YZV3D2				
	3500	MacAdam 2step	SPHWAHDNK27YZU2D2	5152	138		
		MacAdam 3step	SPHWAHDNK27YZU3D2				
	4000	MacAdam 2step	SPHWAHDNK27YZT2D2	5266	141		
		MacAdam 3step	SPHWAHDNK27YZT3D2				
	5000	MacAdam 3step	SPHWAHDNK27YZR3D2	5325	143		

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 3step	SPHWAHDNL231ZV3D2	9225	164	1080mA 52V
		4000	MacAdam 3step	SPHWAHDNL231ZT3D2	9521	170	
		5000	MacAdam 3step	SPHWAHDNL231ZR3D2	9668	172	
	80+	2700	MacAdam 2step	SPHWAHDNL251ZW2D2	8107	144	
			MacAdam 3step	SPHWAHDNL251ZW3D2			
		3000	MacAdam 2step	SPHWAHDNL251ZV2D2	8542	152	
			MacAdam 3step	SPHWAHDNL251ZV3D2			
		3500	MacAdam 2step	SPHWAHDNL251ZU2D2	8812	157	
			MacAdam 3step	SPHWAHDNL251ZU3D2			
		4000	MacAdam 2step	SPHWAHDNL251ZT2D2	8995	160	
			MacAdam 3step	SPHWAHDNL251ZT3D2			
		5000	MacAdam 3step	SPHWAHDNL251ZR3D2	9039	161	
	5700	MacAdam 3step	SPHWAHDNL251ZQ3D2	9084	162		
	6500	MacAdam 3step	SPHWAHDNL251ZP3D2	8990	160		
	90+	2700	MacAdam 2step	SPHWAHDNL271ZW2D2	6959	124	
			MacAdam 3step	SPHWAHDNL271ZW3D2			
		3000	MacAdam 2step	SPHWAHDNL271ZV2D2	7352	131	
			MacAdam 3step	SPHWAHDNL271ZV3D2			
3500		MacAdam 2step	SPHWAHDNL271ZU2D2	7539	134		
		MacAdam 3step	SPHWAHDNL271ZU3D2				
4000		MacAdam 2step	SPHWAHDNL271ZT2D2	7706	137		
		MacAdam 3step	SPHWAHDNL271ZT3D2				
5000		MacAdam 3step	SPHWAHDNL271ZR3D2	7793	139		
70+	3000	MacAdam 3step	SPHWAHDNM231ZV3D2	13465	160		
	4000	MacAdam 3step	SPHWAHDNM231ZT3D2	13896	165		
	5000	MacAdam 3step	SPHWAHDNM231ZR3D2	14112	168		
80+	2700	MacAdam 2step	SPHWAHDNM251ZW2D2	11815	140		
		MacAdam 3step	SPHWAHDNM251ZW3D2				
	3000	MacAdam 2step	SPHWAHDNM251ZV2D2	12468	148		
		MacAdam 3step	SPHWAHDNM251ZV3D2				
	3500	MacAdam 2step	SPHWAHDNM251ZU2D2	12852	153		
		MacAdam 3step	SPHWAHDNM251ZU3D2				
	4000	MacAdam 2step	SPHWAHDNM251ZT2D2	13123	156		
		MacAdam 3step	SPHWAHDNM251ZT3D2				
	5000	MacAdam 3step	SPHWAHDNM251ZR3D2	13196	157		
5700	MacAdam 3step	SPHWAHDNM251ZQ3D2	13258	157			
6500	MacAdam 3step	SPHWAHDNM251ZP3D2	13121	156			
90+	2700	MacAdam 2step	SPHWAHDNM271ZW2D2	10157	121		
		MacAdam 3step	SPHWAHDNM271ZW3D2				
	3000	MacAdam 2step	SPHWAHDNM271ZV2D2	10731	127		
		MacAdam 3step	SPHWAHDNM271ZV3D2				
	3500	MacAdam 2step	SPHWAHDNM271ZU2D2	11004	131		
		MacAdam 3step	SPHWAHDNM271ZU3D2				
	4000	MacAdam 2step	SPHWAHDNM271ZT2D2	11247	134		
		MacAdam 3step	SPHWAHDNM271ZT3D2				
	5000	MacAdam 3step	SPHWAHDNM271ZR3D2	11375	135		

D-series Gen 1



T _j =85°C	LC016D Gen 1	LC019D Gen 1	LC026D Gen 1	LC040D Gen 1	LC060D Gen 1	LC080D Gen 1
LES	14.5mm			22 mm		
Typical	34.6 V			52 V		
	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.	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)
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)	
 LC016D Gen 1	80+	2700	MacAdam 2step	SPHWH AHDNE25YZW2H9	2065	133	450mA 34.6V
			MacAdam 3step	SPHWH AHDNE25YZW3H9			
			MacAdam 2step	SPHWH AHDNE25YZW2D1	2169	139	
			MacAdam 3step	SPHWH AHDNE25YZW3D1			
		3000	MacAdam 2step	SPHWH AHDNE25YZV2J0	2182	140	
			MacAdam 3step	SPHWH AHDNE25YZV3J0			
			MacAdam 2step	SPHWH AHDNE25YZV2D1	2291	147	
			MacAdam 3step	SPHWH AHDNE25YZV3D1			
		3500	MacAdam 2step	SPHWH AHDNE25YZU2J1	2263	145	
			MacAdam 3step	SPHWH AHDNE25YZU3J1			
			MacAdam 2step	SPHWH AHDNE25YZU2D1	2376	153	
			MacAdam 3step	SPHWH AHDNE25YZU3D1			
	4000	MacAdam 2step	SPHWH AHDNE25YZT2J1	2304	148		
		MacAdam 3step	SPHWH AHDNE25YZT3J1				
		MacAdam 2step	SPHWH AHDNE25YZT2D1	2419	155		
		MacAdam 3step	SPHWH AHDNE25YZT3D1				
	5000	MacAdam 3step	SPHWH AHDNE25YZR3J2	2324	149		
			SPHWH AHDNE25YZR3D1	2440	157		
	5700	MacAdam 3step	SPHWH AHDNE25YZQ3J2	2324	149		
			SPHWH AHDNE25YZQ3D1	2440	157		
	6500	MacAdam 3step	SPHWH AHDNE25YZP3J1	2304	148		
			SPHWH AHDNE25YZP3D1	2419	155		

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	90+	2700	MacAdam 2step	SPHWH AHDNE27YZW2H6	1771	114	450mA 34.6V	
			MacAdam 3step	SPHWH AHDNE27YZW3H6				
			MacAdam 2step	SPHWH AHDNE27YZW2D1	1860	119		
			MacAdam 3step	SPHWH AHDNE27YZW3D1				
		3000	MacAdam 2step	SPHWH AHDNE27YZV2H7	1877	121		
			MacAdam 3step	SPHWH AHDNE27YZV3H7				
			MacAdam 2step	SPHWH AHDNE27YZV2D1	1970	127		
			MacAdam 3step	SPHWH AHDNE27YZV3D1				
		3500	MacAdam 2step	SPHWH AHDNE27YZU2H8	1932	124		
			MacAdam 3step	SPHWH AHDNE27YZU3H8				
			MacAdam 2step	SPHWH AHDNE27YZU2D1	2029	130		
			MacAdam 3step	SPHWH AHDNE27YZU3D1				
	4000	MacAdam 2step	SPHWH AHDNE27YZT2H8	1971	127			
		MacAdam 3step	SPHWH AHDNE27YZT3H8					
		MacAdam 2step	SPHWH AHDNE27YZT2D1	2069	133			
		MacAdam 3step	SPHWH AHDNE27YZT3D1					
	5000	MacAdam 3step	SPHWH AHDNE27YZR3H8	1989	128			
			SPHWH AHDNE27YZR3D1	2089	134			
	 LC019D Gen 1	80+	2700	MacAdam 2step	SPHWH AHDNF25YZW2J3	2458	132	540mA 34.6V
				MacAdam 3step	SPHWH AHDNF25YZW3J3			
				MacAdam 2step	SPHWH AHDNF25YZW2D1	2581	138	
				MacAdam 3step	SPHWH AHDNF25YZW3D1			
			3000	MacAdam 2step	SPHWH AHDNF25YZV2J4	2592	139	
				MacAdam 3step	SPHWH AHDNF25YZV3J4			
MacAdam 2step				SPHWH AHDNF25YZV2D1	2722	146		
MacAdam 3step				SPHWH AHDNF25YZV3D1				
3500			MacAdam 2step	SPHWH AHDNF25YZU2J5	2672	143		
			MacAdam 3step	SPHWH AHDNF25YZU3J5				
			MacAdam 2step	SPHWH AHDNF25YZU2D1	2805	150		
			MacAdam 3step	SPHWH AHDNF25YZU3D1				
4000		MacAdam 2step	SPHWH AHDNF25YZT2J5	2726	146			
		MacAdam 3step	SPHWH AHDNF25YZT3J5					
		MacAdam 2step	SPHWH AHDNF25YZT2D1	2863	153			
		MacAdam 3step	SPHWH AHDNF25YZT3D1					
5000		MacAdam 3step	SPHWH AHDNF25YZR3J6	2756	148			
			SPHWH AHDNF25YZR3D1	2894	155			
5700		MacAdam 3step	SPHWH AHDNF25YZQ3J6	2756	148			
			SPHWH AHDNF25YZQ3D1	2894	155			
6500		MacAdam 3step	SPHWH AHDNF25YZP3J5	2726	146			
			SPHWH AHDNF25YZP3D1	2863	153			



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Component

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	90+	2700	MacAdam 2step	SPHWAHDNF27YZW2H9	2104	113	540mA 34.6V	
			MacAdam 3step	SPHWAHDNF27YZW3H9				
			MacAdam 2step	SPHWAHDNF27YZW2D1	2210	118		
			MacAdam 3step	SPHWAHDNF27YZW3D1				
			3000	MacAdam 2step	SPHWAHDNF27YZV2J0	2207		118
				MacAdam 3step	SPHWAHDNF27YZV3J0			
		MacAdam 2step		SPHWAHDNF27YZV2D1	2317	124		
		MacAdam 3step	SPHWAHDNF27YZV3D1					
		3500	MacAdam 2step	SPHWAHDNF27YZU2J1	2287	122		
			MacAdam 3step	SPHWAHDNF27YZU3J1				
			MacAdam 2step	SPHWAHDNF27YZU2D1	2402	129		
			MacAdam 3step	SPHWAHDNF27YZU3D1				
		4000	MacAdam 2step	SPHWAHDNF27YZT2J2	2337	125		
			MacAdam 3step	SPHWAHDNF27YZT3J2				
			MacAdam 2step	SPHWAHDNF27YZT2D1	2454	131		
			MacAdam 3step	SPHWAHDNF27YZT3D1				
		5000	MacAdam 3step	SPHWAHDNG27YZR3J8	2339	125		
				SPHWAHDNG27YZR3D1	2456	131		
 LC026D Gen 1	80+	2700	MacAdam 2step	SPHWAHDNK25YZW2M7	3225	129	720mA 34.6V	
			MacAdam 3step	SPHWAHDNK25YZW3M7				
			MacAdam 2step	SPHWAHDNK25YZW2D1	3386	136		
			MacAdam 3step	SPHWAHDNK25YZW3D1				
		3000	MacAdam 2step	SPHWAHDNK25YZV2M9	3389	136		
			MacAdam 3step	SPHWAHDNK25YZV3M9				
			MacAdam 2step	SPHWAHDNK25YZV2D1	3558	143		
			MacAdam 3step	SPHWAHDNK25YZV3D1				
		3500	MacAdam 2step	SPHWAHDNK25YZU2N1	3488	140		
			MacAdam 3step	SPHWAHDNK25YZU3N1				
			MacAdam 2step	SPHWAHDNK25YZU2D1	3663	147		
		MacAdam 3step	SPHWAHDNK25YZU3D1					
		4000	MacAdam 2step	SPHWAHDNK25YZT2N2	3558	143		
			MacAdam 3step	SPHWAHDNK25YZT3N2				
			MacAdam 2step	SPHWAHDNK25YZT2D1	3736	150		
			MacAdam 3step	SPHWAHDNK25YZT3D1				
		5000	MacAdam 3step	SPHWAHDNK25YZR3N2	3588	144		
				SPHWAHDNK25YZR3D1	3767	151		
		5700	MacAdam 3step	SPHWAHDNK25YZQ3N3	3588	144		
				SPHWAHDNK25YZQ3D1	3767	151		
		6500	MacAdam 3step	SPHWAHDNK25YZP3N2	3558	143		
				SPHWAHDNK25YZP3D1	3736	150		

Chip-on-Board LEDs

Component



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	90+	2700	MacAdam 2step	SPHWAHDNK27YZW2M0	2760	111	720mA 34.6V	
			MacAdam 3step	SPHWAHDNK27YZW3M0				
			MacAdam 2step	SPHWAHDNK27YZW2D1	2898	116		
			MacAdam 3step	SPHWAHDNK27YZW3D1				
			3000	MacAdam 2step	SPHWAHDNK27YZV2M2	2903		117
				MacAdam 3step	SPHWAHDNK27YZV3M2			
		MacAdam 2step		SPHWAHDNK27YZV2D1	3048	122		
		MacAdam 3step	SPHWAHDNK27YZV3D1					
		3500	MacAdam 2step	SPHWAHDNK27YZU2M4	2990	120		
			MacAdam 3step	SPHWAHDNK27YZU3M4				
			MacAdam 2step	SPHWAHDNK27YZU2D1	3139	126		
			MacAdam 3step	SPHWAHDNK27YZU3D1				
		4000	MacAdam 2step	SPHWAHDNK27YZT2M5	3051	122		
			MacAdam 3step	SPHWAHDNK27YZT3M5				
			MacAdam 2step	SPHWAHDNK27YZT2D1	3204	129		
			MacAdam 3step	SPHWAHDNK27YZT3D1				
		5000	MacAdam 3step	SPHWAHDNK27YZR3M5	3077	124		
				SPHWAHDNK27YZR3D1	3231	130		
 LC040D Gen 1	80+	2700	MacAdam 2step	SPHWAHDNG25YZW2K0	4996	134	1080mA 34.6V	
			MacAdam 3step	SPHWAHDNG25YZW3K0				
			MacAdam 2step	SPHWAHDNG25YZW2D1	5246	140		
			MacAdam 3step	SPHWAHDNG25YZW3D1				
		3000	MacAdam 2step	SPHWAHDNG25YZV2K2	5257	141		
			MacAdam 3step	SPHWAHDNG25YZV3K2				
			MacAdam 2step	SPHWAHDNG25YZV2D1	5520	148		
			MacAdam 3step	SPHWAHDNG25YZV3D1				
		3500	MacAdam 2step	SPHWAHDNG25YZU2K3	5418	145		
			MacAdam 3step	SPHWAHDNG25YZU3K3				
			MacAdam 2step	SPHWAHDNG25YZU2D1	5689	152		
		MacAdam 3step	SPHWAHDNG25YZU3D1					
		4000	MacAdam 2step	SPHWAHDNG25YZT2K3	5535	148		
			MacAdam 3step	SPHWAHDNG25YZT3K3				
			MacAdam 2step	SPHWAHDNG25YZT2D1	5812	156		
			MacAdam 3step	SPHWAHDNG25YZT3D1				
		5000	MacAdam 3step	SPHWAHDNG25YZR3K4	5561	149		
				SPHWAHDNG25YZR3D1	5839	156		
		5700	MacAdam 3step	SPHWAHDNG25YZQ3K4	5588	150		
				SPHWAHDNG25YZQ3D1	5868	157		
		6500	MacAdam 3step	SPHWAHDNG25YZP3K3	5528	148		
				SPHWAHDNG25YZP3D1	5804	155		


Chip-on-Board LEDs

Chip-on-Board LEDs

Component

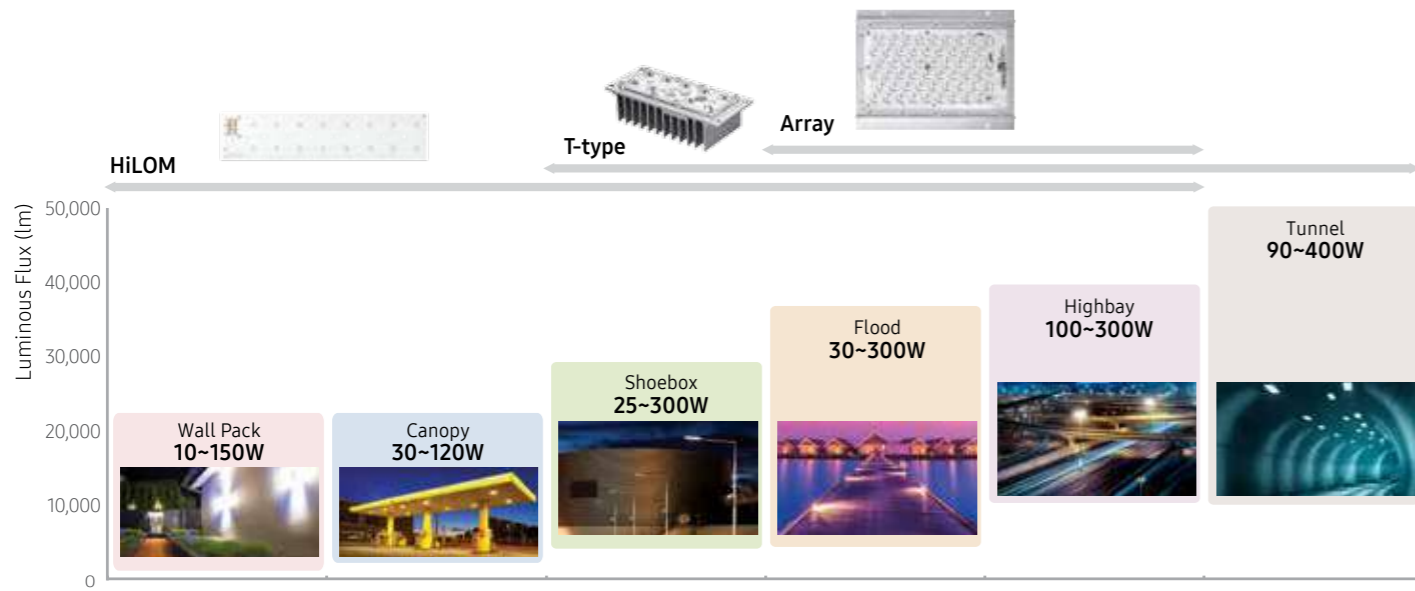
Component

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	90+	2700	MacAdam 2step	SPHWHAHDNG27YZW2J6	4283	115	1080mA 34.6V	
			MacAdam 3step	SPHWHAHDNG27YZW3J6				
		3000	MacAdam 2step	SPHWHAHDNG27YZW2D1	4497	120		
			MacAdam 3step	SPHWHAHDNG27YZW3D1				
	3500	3000	MacAdam 2step	SPHWHAHDNG27YZV2J7	4525	121		
			MacAdam 3step	SPHWHAHDNG27YZV3J7				
		4000	MacAdam 2step	SPHWHAHDNG27YZV2D1	4751	127		
			MacAdam 3step	SPHWHAHDNG27YZV3D1				
	5000	3500	MacAdam 2step	SPHWHAHDNG27YZU2J8	4640	124		
			MacAdam 3step	SPHWHAHDNG27YZU3J8				
		4000	MacAdam 2step	SPHWHAHDNG27YZU2D1	4872	130		
			MacAdam 3step	SPHWHAHDNG27YZU3D1				
	70+	3000	MacAdam 2step	SPHWHAHDNG27YZT2J8	4742	127		
			MacAdam 3step	SPHWHAHDNG27YZT3J8				
		5000	MacAdam 2step	SPHWHAHDNG27YZT2D1	4979	133		
			MacAdam 3step	SPHWHAHDNG27YZT3D1				
	 LC060D Gen 1	70+	3000	MacAdam 3step	SPHWHAHDNL231ZV3Q8	8284		148
			4000	MacAdam 3step	SPHWHAHDNL231ZT3R1	8550		152
			5000	MacAdam 3step	SPHWHAHDNL231ZR3R2	8683		155
		80+	2700	MacAdam 2step	SPHWHAHDNL251ZW2P9	7277		130
MacAdam 3step				SPHWHAHDNL251ZW3P9				
3000			MacAdam 2step	SPHWHAHDNL251ZV2Q3	7667	137		
			MacAdam 3step	SPHWHAHDNL251ZV3Q3				
3500			MacAdam 2step	SPHWHAHDNL251ZU2Q5	7904	141		
			MacAdam 3step	SPHWHAHDNL251ZU3Q5				
4000			MacAdam 2step	SPHWHAHDNL251ZT2Q6	8075	144		
			MacAdam 3step	SPHWHAHDNL251ZT3Q6				
5000			MacAdam 3step	SPHWHAHDNL251ZR3Q7	8113	144		
5700	MacAdam 3step	SPHWHAHDNL251ZQ3Q7	8151	145				
6500	MacAdam 3step	SPHWHAHDNL271ZP3Q6	8066	144				

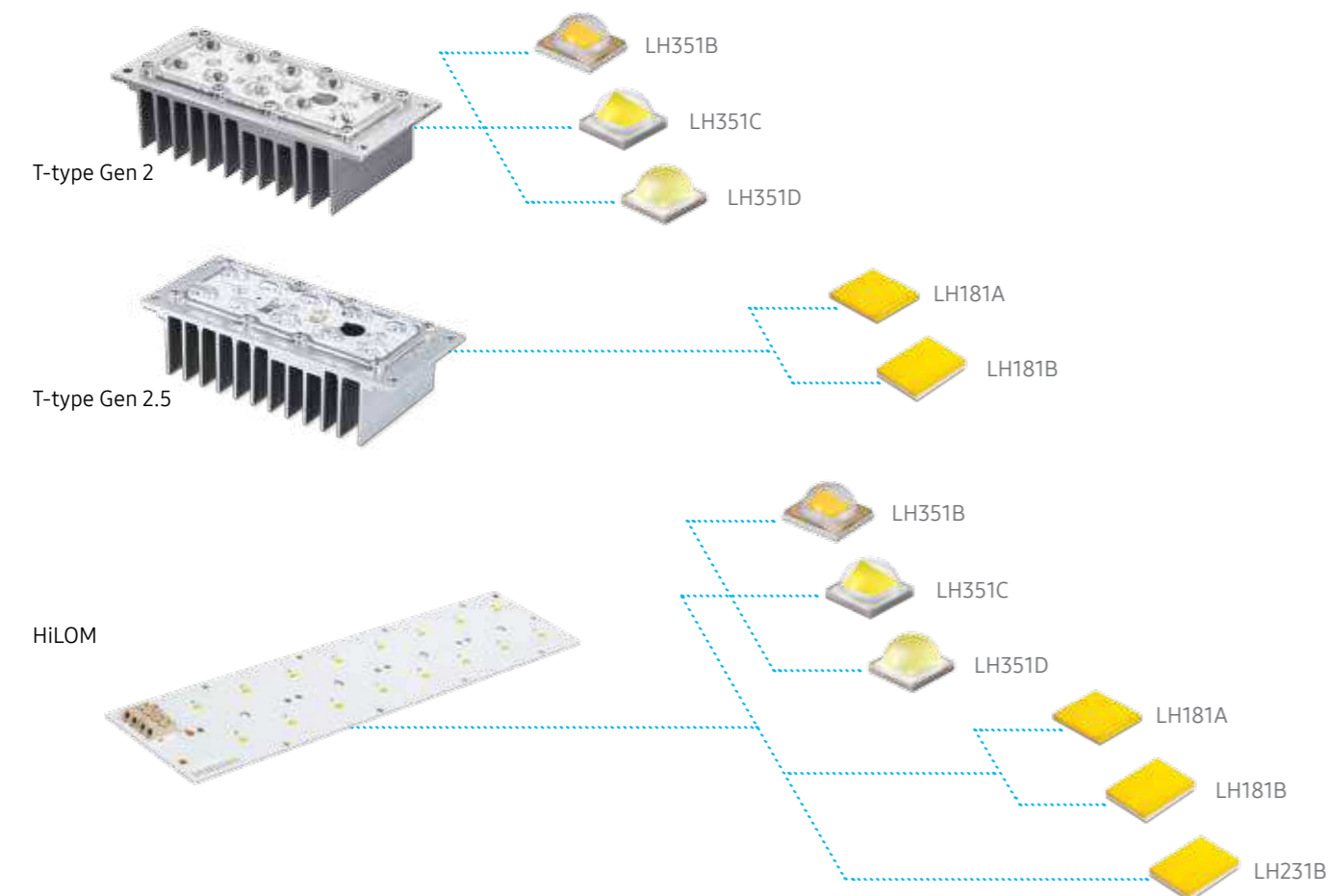
Product	CRI	CCT (K)	Color rank	Part Number	T _j =85°C		I _F (mA) V _F (V)
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	
 LC080D Gen 1	70+	3000	MacAdam 3step	SPHWHAHDNM231ZV3U5	12084	143	1620mA 52V
		4000	MacAdam 3step	SPHWHAHDNM231ZT3U9	12483	148	
			5000	MacAdam 3step	SPHWHAHDNM231ZR3V0	12673	
	2700	MacAdam 2step	SPHWHAHDNM251ZW2T1	10612	126		
		MacAdam 3step	SPHWHAHDNM251ZW3T1				
	3000	MacAdam 2step	SPHWHAHDNM251ZV2T6	11201	133		
		MacAdam 3step	SPHWHAHDNM251ZV3T6				
	3500	MacAdam 2step	SPHWHAHDNM251ZU2T9	11533	137		
		MacAdam 3step	SPHWHAHDNM251ZU3T9				
	80+	4000	MacAdam 2step	SPHWHAHDNM251ZT2U2	11780	140	
			MacAdam 3step	SPHWHAHDNM251ZT3U2			
		5000	MacAdam 3step	SPHWHAHDNM251ZR3U2	11847	141	
		5700	MacAdam 3step	SPHWHAHDNM251ZQ3V0	11904	141	
		6500	MacAdam 3step	SPHWHAHDNM251ZP3V5	11723	139	

Carefully integrated with LED packages, optics and thermal components for superior lumen density and reliability

Total solution for outdoor lighting



Standard footprints allow for greater design flexibility



Full optic solutions enabling fast time to market

- Superior lens compatibility

Ceramic	Road & Street lighting (Type 1~Type 5)	Tunnel & Flood lighting
CSP & EMC	Road & Street lighting (Type 1~Type 5)	Tunnel & Flood lighting

High compatibility with existing lighting fixture designs

- Following Zhaga specifications
- Easy to design 2nd optics



Modular Platform Engine



Model	Light Distribution	Heat Sink	Connector	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Waterproof/Dustproof Grade	Temperature Range (Operation, Tc)	Certification	Part Number
E-type	Type2 Short	Fin	Connector	2300	21	30	700	1000	100.0	80+	3000	230	IP66	-30~+80	CE, UL	SL-P8V2V27MBWW
				2650					114.3	75+	5000					SL-PGR2V47MBWW
F-type	Type2 Medium	-	Wire	2400	21	30	700	1,000	100.0	70+	3000	170	IP66	+10~+90	CE	SL-P7V2F32MBKI
									4000	4000	SL-P7T2F32MBKI					
									3000	3000	SL-P7V2F385BKI					
									4000	4000	SL-P7T2F385BKI					

* E-type: with fin (thermal management by engine), F-type: without fin (thermal management by fixture), T-type: flange with fin (H/S with Tetra screw-holes)



Model	Light Distribution	Heat Sink	Connector	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Waterproof/Dustproof Grade	Temperature Range (Operation, Tc)	Certification	Part Number
T-type Gen2	Type1 Short	Fin	Connector	2650	21	30	700	1000	126.2	75+	5000	295	IP66	-30~+80	CE, UL	SL-PGR2W53LBWW
	Type2 Very Short															SL-PGR2W53MBWW
	Type2 Short															SL-PGR2W57MBWW
	Type1 Short															SL-PGQ2W53LBWW
	Type2 Very Short															SL-PGQ2W53MBWW
	Type1 Short															SL-PGR2W51SBGL
	Type1 Very Short															SL-PGR2W6T1BGL
	Type2 Short															SL-PGR2W52SBGL
	Type2 Very Short															SL-PGR2W57SBGL
	Type2 Medium															SL-PGR2W52MBGL
	Type5 Short															SL-PGR2W55SBGL
	Beam angle 85															SL-P7R2W585BGL
	Type1 Short															SL-PGR2W51SBGL
	Type2 Very Short															SL-PGR2W57SBGL
	Type2 Short															SL-PGR2W52SBGL
	Type2 Short															SL-P7R2W5R1BGL
Type2 Long	SL-P7R2W5R2BGL															
Beam angle 85	SL-P7R2W585BGL															
T-type Gen2.5 (LH181A)	-	Fin	Connector	2600	20	28	700	1000	130.0	80+	3000	290	IP66	+10 ~ +95	-	SL-P8V2W6RA1WW
				2800					140.0	4000	SL-P8T2W6RA1WW					
				2850					142.5	5000	SL-P8R2W6RA1WW					
				2850					142.5	5700	SL-P8Q2W6RA1WW					
				2850					142.5	5700	SL-P8Q2W6RA1WW					

* E-type: with fin (thermal management by engine), F-type: without fin (thermal management by fixture), T-type: flange with fin (H/S with Tetra screw-holes)

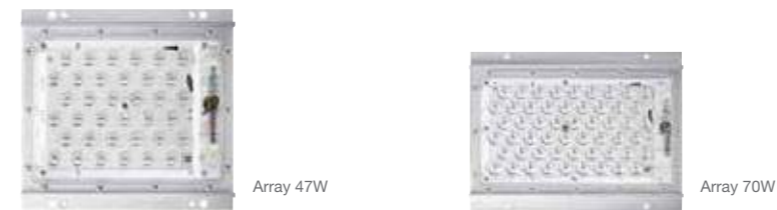
HiLOM



Model	Connector	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Temperature Range (Operation, Tc)	Certification	Part Number
HiLOM (LH351C)	Poke-in	4680	32.7	23.4	1400	2000	143	70+	3000	37	+10 ~ +95	CE, UL	SL-B7V3N80LCWW
		5060	32.7	23.4			155	4000	37	SL-B7T3N80LCWW			
		5060	32.7	23			155	5000	37	SL-B7R3N80LCWW			

* HiLOM: High Luminance Outdoor Module

Integrated Array Module



Model	Light Distribution	Heat Sink	Connector	Luminous Flux (lm)	Power Consumption (W)	Input Voltage (V)	IF (mA)	Imax (mA)	Efficacy (lm/W)	CRI	CCT (K)	Weight (g)	Waterproof/Dustproof Grade	Temperature Range (Operation, Tc)	Certification	Part Number
Array	Type2 Short	Fin	Connector	6450	47	52	900	2000	137	70+	5000	1660	IP66	-30~+80	-	SL-IGR5E82SBWW
	Type2 Short			SL-IGR7E97SBWW												
	Beam angle 70			9700	70	52	1350	3000	139	SL-IGR7E970BWW						
	Beam angle 120			SL-IGR7E9C0BWW												

Driver



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	25W	265 x 70 x 48.5	220-240	27-33	700	86	<20	1-10V	KS	>0.9	Independent type, IP67, Molex, <THD 30%@1V Dimming, High Surge
SL-L21425017KR	50W				1400	86.5					
SL-L22127517KR	75W				2100	87					
SL-L2282A017KR	100W				2800	88.5					
SL-L2422A517KR	150W				4200	90.5					
SL-L2562B017KR	200W				5600	91					

Driver



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, 2 channel, IP67, KET
SL-L2701B0N1KR	200	258 x 68 x 33.9	220-240	100-130	700	93		Non Dim	KS		Independent type, 2 channel, IP67, KET



SL-L27012503KR



SL-L21425003KR
SL-L22127503KR



SL-L2282A013KR
SL-L2352A213KR
SL-L2422A513KR
SL-L2562B013KR

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-L27012503KR	25	177 x 40 x 37	220-240	24-33	700	85	<20	1-10V	KS	>0.9	Independent type, IP67, Molex
SL-L21425003KR	50	210 x 40 x 37			1400	87					
SL-L22127503KR	75				2100	88					
SL-L2282A013KR	100				2800	89					
SL-L2352A213KR	125				3500	90					
SL-L2422A513KR	150				4200	90					
SL-L2562B013KR	200	5600	91	>0.95							



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	UL, cUL	>0.9	Programmable Output Current, IP67
SL-LU1425501US	55	173 x 67.5 x 40			1400	88					Independent type, IP67
SL-LU2027801US	78	173 x 67.5 x 40			2000	88					
SL-LU262A001US	100	187 x 67.5 x 40			2600	88					



SL-L2701151AKR
SL-L2701251AKR



SL-L2701301AKR
SL-L2701401AKR
SL-L2701501AKR



SL-L2701751AKR
SL-L2701A01AKR



SL-L2701A51AKR
SL-L2701B01AKR

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			18-33	85						
SL-L2701301AKR	30			39-63	86						
SL-L2701401AKR	40			39-63	87						
SL-L2701501AKR	50			39-63	88						
SL-L2701751AKR	75	182 x 66 x 38.8	220-240	85-125	700	89	<20	1-10V	KS	>0.9	Independent type, IP67, KET
SL-L2701A01AKR	100			85-125	90						
SL-L2701A51AKR	150			177-243	91						
SL-L2701B01AKR	200			177-243	92						



SL-LA7012502US
SL-LA1425002US



SL-L22127502US



SL-LA142A002US



SL-LA212A502US



SL-L2282B002US

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-LA7012502US	25	193 x 42.5 x 34.5	100-277	18-36	700	85	<20	0-10V	UL, cUL	>0.9	Independent type, IP67
SL-LA1425002US	50				1400	88					
SL-L22127502US	75	173 x 67.5 x 40	100-277	17-34	2100	89	<20	0-10V	UL, cUL	>0.9	Independent type, IP67
SL-LA142A002US	100	187 x 67.5 x 40			2800	87					
SL-LA212A502US	150	221 x 67.5 x 40	100-277	18-36	4200	88	<20	0-10V	UL, cUL	>0.9	Independent type, IP67
SL-L2282B002US	200	251 x 67.5 x 40			5600	88					