

SAMSUNG

Specialty Lighting

# Retail Lighting Solutions




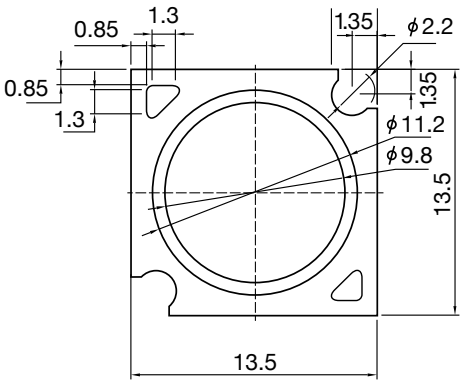
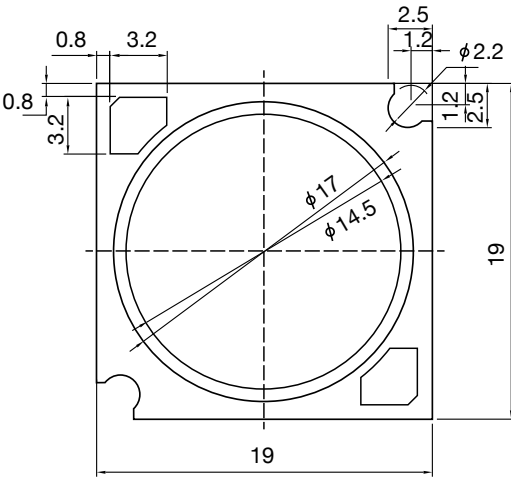
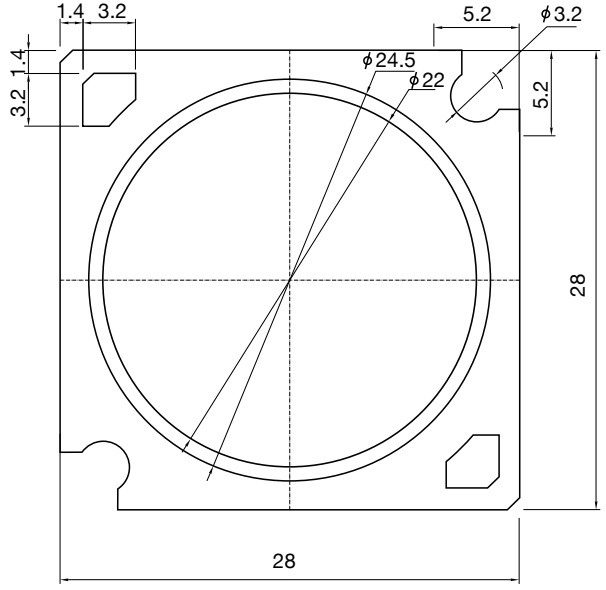
2020 H2 v1



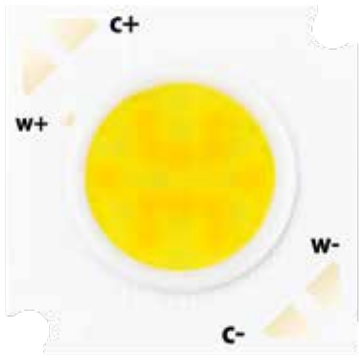
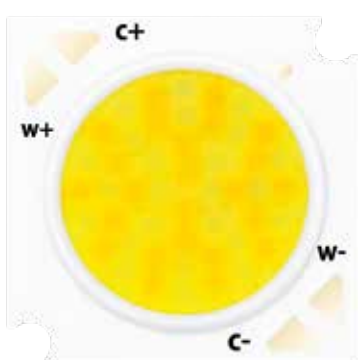
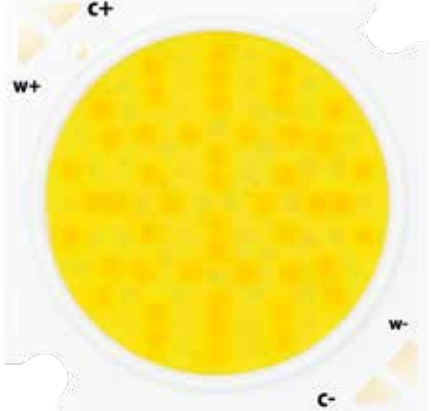
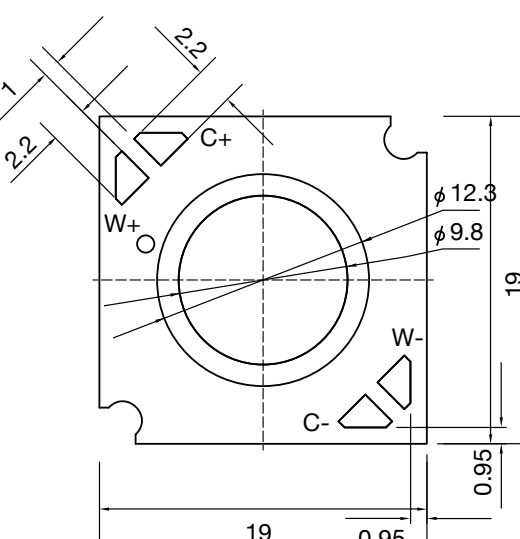
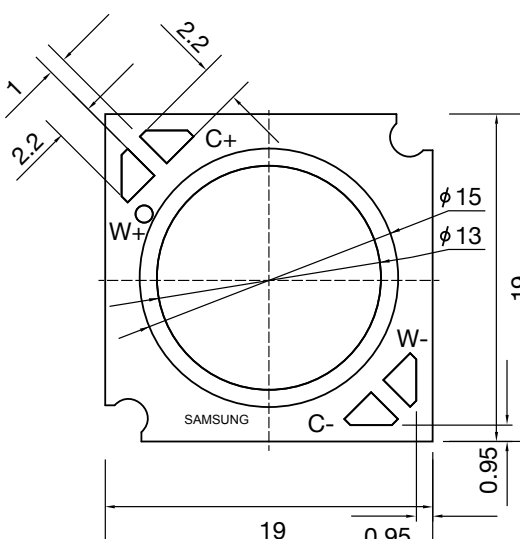
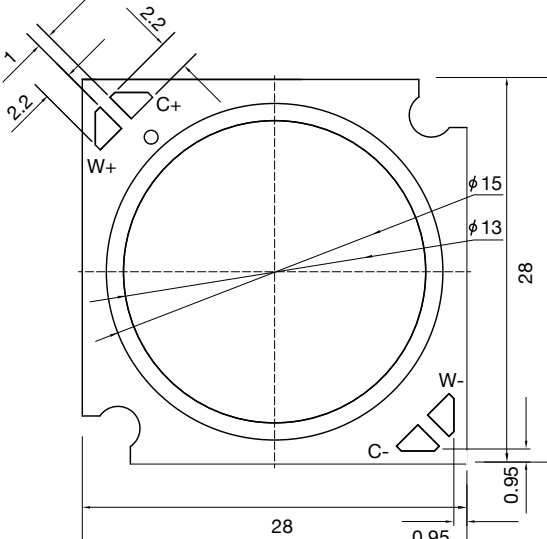
## Fine-tuned LEDs for color maximization

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

## R-series

$T_j=85^\circ\text{C}$	LC013R	LC016R	LC019R	LC026R	LC033R	LC040R
						
LES	9.8mm		14.5mm			22mm
Dimension						
Size	13.5mm x 13.5mm		19mm x 19mm			28mm x 28mm

## T-series

$T_j=85^\circ\text{C}$	LC010T	LC020T	LC035T
			
LES	9.8mm	13mm	22mm
Dimension			
Size		19mm x 19mm	28mm x 28mm

# R-series Fashion Vivid White (in Gen 2) —

Vividly enhanced colors, contrast and exceptional white light

Product	CRI	CCT (K)	Color Rank	Part Number	T <sub>j</sub> = 85°C		Power, Current, Voltage	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC013R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZVND2	1435	115		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDND27YZUND2	1494	120	12.5W 360mA 34.6V	34.5W 920mA 37.5V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZTND2	1541	124		
LC016R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZVND2	1837	118		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZUND2	1912	123	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZTND2	1972	127		
LC019R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZVND2	2195	117		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZUND2	2284	122	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZTND2	2355	126		
LC026R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZVND2	2917	117		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZUND2	3036	122	24.9W 720mA 34.6V	69W 1840mA 37.5V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZTND2	3131	126		
LC033R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZVND2	3589	115		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZUND2	3735	120	31.1W 900mA 34.6V	86.2W 2300mA 37.5V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZTND2	3852	124		
LC040R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZVND2	4428	118		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZUND2	4591	123	37.4W 1080mA 34.6V	103.5W 2760mA 37.5V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZTND2	4745	127		

# R-series Fashion Vivid White (in Gen 2+) —

Vividly enhanced colors, contrast and exceptional white light

Product	CRI	CCT (K)	Color Rank	Part Number	T <sub>j</sub> = 85°C		Power, Current, Voltage	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC013R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZVNDB	1511	123		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDND27YZUNDB	1526	125	12.2W 360mA 34V	26.6W 720mA 34V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZTNDB	1622	133		
LC016R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZVNDB	1934	126		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZUNDB	1953	128	15.3W 450mA 34V	33.2W 900mA 34V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZTNDB	2078	136		
LC019R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZVNDB	2310	126		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZUNDB	2333	127	18.4W 540mA 34V	39.9W 1080mA 34V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZTNDB	2479	135		
LC026R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZVNDB	3071	125		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZUNDB	3102	127	24.5W 720mA 34V	53.1W 1440mA 34V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZTNDB	3296	135		
LC033R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZVNDB	3778	123		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZUNDB	3816	125	30.6W 900mA 34V	66.4W 1800mA 34V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZTNDB	4055	133		
LC040R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZVNDB	4590	125		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZUNDB	4536	124	36.7W 1080mA 34V	79.7W 2160mA 34V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZTNDB	4926	134		



# R-series Fashion Vivid White (in Gen 3+) —

Vividly enhanced colors, contrast and exceptional white light

Product	CRI	CCT (K)	Color Rank	Part Number	T <sub>j</sub> = 85°C		Power, Current, Voltage	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC013R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZVNDC	1541	127		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDND27YZUNDC	1557	128	12.1W 360mA 33.7V	26.4W 720mA 33.7V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDND27YZTNDC	1654	136		
LC016R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZVNDC	1973	130		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZUNDC	1992	131	15.2W 450mA 33.7V	33W 900mA 33.7V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNE27YZTNDC	2117	140		
LC019R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZVNDC	2356	129		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZUNDC	2380	131	18.2W 540mA 33.7V	39.5W 1080mA 33.7V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNF27YZTNDC	2529	139		
LC026R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZVNDC	3132	129		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZUNDC	3164	130	24.3W 720mA 33.7V	52.7W 1440mA 33.7V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNG27YZTNDC	3362	139		
LC033R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZVNDC	3800	125		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZUNDC	3838	127	30.3W 900mA 33.7V	65.9W 1800mA 33.7V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNH27YZTNDC	4078	134		
LC040R Fashion Vivid White	90+	3000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZVNDC	4755	131		
		3500 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZUNDC	4803	132	36.4W 1080mA 33.7V	79.1W 2160mA 33.7V
		4000 (Below BBL)	MacAdam 3step	SPHWAHDNK27YZTNDC	5103	140		

# R-series Fashion Vivid Color

Vividly enhanced colors, contrast and exceptional white light

Product	CCT (K)	Color Rank	Part Number	T <sub>j</sub> = 85°C		Power, Current, Voltage	
				Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC013R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWHHAHDND2VYZV2D2	1334	107	12.5W 360mA 34.6V	34.5W 920mA 37.5V
		MacAdam 3step	SPHWHHAHDND2VYZVVD2				
	3300 (Below BBL)	MacAdam 2step	SPHWHHAHDND2VYZA2D2	1394	112		
		MacAdam 3step	SPHWHHAHDND2VYZAVD2				
	3500 (Below BBL)	MacAdam 2step	SPHWHHAHDND2VYZU2D2	1433	115		
		MacAdam 3step	SPHWHHAHDND2VYZUVD2				
	4000 (Below BBL)	MacAdam 2step	SPHWHHAHDND2VYZT2D2	1533	123		
		MacAdam 3step	SPHWHHAHDND2VYZTVD2				
LC016R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWHHAHDNE2VYZ2VD2	1745	112	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
		MacAdam 3step	SPHWHHAHDNE2VYZVVD2				
	3300 (Below BBL)	MacAdam 2step	SPHWHHAHDNE2VYZA2D2	1823	117		
		MacAdam 3step	SPHWHHAHDNE2VYZAVD2				
	3500 (Below BBL)	MacAdam 2step	SPHWHHAHDNE2VYZU2D2	1875	120		
		MacAdam 3step	SPHWHHAHDNE2VYZUVD2				
	4000 (Below BBL)	MacAdam 2step	SPHWHHAHDNE2VYZT2D2	2005	129		
		MacAdam 3step	SPHWHHAHDNE2VYZTVD2				
LC019R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWHHAHDNF2VYZV2D2	2068	111	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
		MacAdam 3step	SPHWHHAHDNF2VYZVVD2				
	3300 (Below BBL)	MacAdam 2step	SPHWHHAHDNF2VYZA2D2	2160	116		
		MacAdam 3step	SPHWHHAHDNF2VYZAVD2				
	3500 (Below BBL)	MacAdam 2step	SPHWHHAHDNF2VYZU2D2	2222	119		
		MacAdam 3step	SPHWHHAHDNF2VYZUVD2				
	4000 (Below BBL)	MacAdam 2step	SPHWHHAHDNF2VYZT2D2	2376	127		
		MacAdam 3step	SPHWHHAHDNF2VYZTVD2				



# R-series Fashion Vivid Color

Vividly enhanced colors, contrast and exceptional white light

Product	CCT (K)	Color Rank	Part Number	T <sub>j</sub> = 85°C		Power, Current, Voltage		
				Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max	
LC026R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWHHAHDNG2VYZV2D2	2706	109	24.9W 720mA 34.6V	69W 1840mA 37.5V	
		MacAdam 3step	SPHWHHAHDNG2VYZVVD2					
	3300 (Below BBL)	MacAdam 2step	SPHWHHAHDNG2VYZA2D2	2827	113			
		MacAdam 3step	SPHWHHAHDNG2VYZAVD2					
	3500 (Below BBL)	MacAdam 2step	SPHWHHAHDNG2VYZU2D2	2907	117			
		MacAdam 3step	SPHWHHAHDNG2VYZUVD2					
	4000 (Below BBL)	MacAdam 2step	SPHWHHAHDNG2VYZT2D2	3108	125			
		MacAdam 3step	SPHWHHAHDNG2VYZTVD2					
	LC033R Fashion Vivid Color	3000 (Below BBL)	MacAdam 2step	SPHWHHAHDNH2VYZV2D2	3339	107	31.1W 900mA 34.6V	86.2W 2300mA 37.5V
			MacAdam 3step	SPHWHHAHDNH2VYZVVD2				
		3300 (Below BBL)	MacAdam 2step	SPHWHHAHDNH2VYZA2D2	3488	112		
			MacAdam 3step	SPHWHHAHDNH2VYZAVD2				
3500 (Below BBL)		MacAdam 2step	SPHWHHAHDNH2VYZU2D2	3588	115			
		MacAdam 3step	SPHWHHAHDNH2VYZUVD2					
4000 (Below BBL)		MacAdam 2step	SPHWHHAHDNH2VYZT2D2	3836	123			
		MacAdam 3step	SPHWHHAHDNH2VYZTVD2					
LC040R Fashion Vivid Color		3000 (Below BBL)	MacAdam 2step	SPHWHHAHDNK2VYZV2D2	4150	111	37.4W 1080mA 34.6V	103.5W 2760mA 37.5V
			MacAdam 3step	SPHWHHAHDNK2VYZVVD2				
		3300 (Below BBL)	MacAdam 2step	SPHWHHAHDNK2VYZA2D2	4335	116		
			MacAdam 3step	SPHWHHAHDNK2VYZAVD2				
	3500 (Below BBL)	MacAdam 2step	SPHWHHAHDNK2VYZU2D2	4459	119			
		MacAdam 3step	SPHWHHAHDNK2VYZUVD2					
	4000 (Below BBL)	MacAdam 2step	SPHWHHAHDNK2VYZT2D2	4768	128			
		MacAdam 3step	SPHWHHAHDNK2VYZTVD2					

## Special spectrum enhanced vividness for Meat

Product	Color Rank	Part Number	T <sub>j</sub> =85°C		Power, Current, Voltage	
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC013R Meat	MacAdam 2step	SPHWHAHDND2VYZTSD2	914	73	12.5W 360mA 34.6V	34.5W 920mA 37.5V
LC016R Meat	MacAdam 2step	SPHWHAHDNE2VYZTSD2	1188	76	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
LC019R Meat	MacAdam 2step	SPHWHAHDNF2VYZTSD2	1412	76	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
LC026R Meat	MacAdam 2step	SPHWHAHDNG2VYZTSD2	1845	74	24.9W 720mA 34.6V	69W 1840mA 37.5V
LC033R Meat	MacAdam 2step	SPHWHAHDNH2VYZTSD2	2284	73	31.1W 900mA 34.6V	86.2W 2300mA 37.5V



# R-series Vegetable

## Special spectrum enhanced vividness for Vegetable

Product	Color Rank	Part Number	T <sub>j</sub> =85°C		Power, Current, Voltage	
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC013R Vegetable	MacAdam 2step	SPHWHAHDND2VYZRSD2	1188	95	12.5W 360mA 34.6V	34.5W 920mA 37.5V
LC016 Vegetable	MacAdam 2step	SPHWHAHDNE2VYZRSD2	1544	99	15.6W 450mA 34.6V	43.1W 1150mA 37.5V
LC019R Vegetable	MacAdam 2step	SPHWHAHDNF2VYZRSD2	1835	98	18.7W 540mA 34.6V	51.8W 1380mA 37.5V
LC026R Vegetable	MacAdam 2step	SPHWHAHDNG2VYZRSD2	2399	96	24.9W 720mA 34.6V	69W 1840mA 37.5V
LC033R Vegetable	MacAdam 2step	SPHWHAHDNH2VYZRSD2	2969	95	31.1W 900mA 34.6V	86.2W 2300mA 37.5V

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

Product	CRI	CCT (K)	Color Rank	Part Number	TJ = 85°C		Power, Current, Voltage	
					Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Typ.	Max
LC010T	80+	2700	MacAdam 3step	SPHWHAHDC25YZWPT1	1190	120	9.8W 280mA 35.0V	15W 400mA 36.0V
		6500	MacAdam 5step		1352	136		
	90+	2700	MacAdam 3step	SPHWHAHDC27YZWPT1	988	99		
		5000	MacAdam 5step		1149	116		
LC020T	80+	2700	MacAdam 3step	SPHWHAHDF25YZWPT1	2355	118	19.6W 560mA 35.0V	30W 800mA 36.0V
		6500	MacAdam 5step		2676	135		
	90+	2700	MacAdam 3step	SPHWHAHDF27YZWPT1	1956	98		
		5000	MacAdam 5step		2275	114		
LC035T	80+	2700	MacAdam 3step	SPHWHAHDNH25YZWPT1	4405	127	34.3W 980mA 35.0V	45W 1250mA 36.0V
		6500	MacAdam 5step		5006	144		
	90+	2700	MacAdam 3step	SPHWHAHDNH27YZWPT1	3660	105		
		5000	MacAdam 5step		4255	122		