

# Color Enriching Solutions

COB R-series for More Appealing Display

**SAMSUNG**



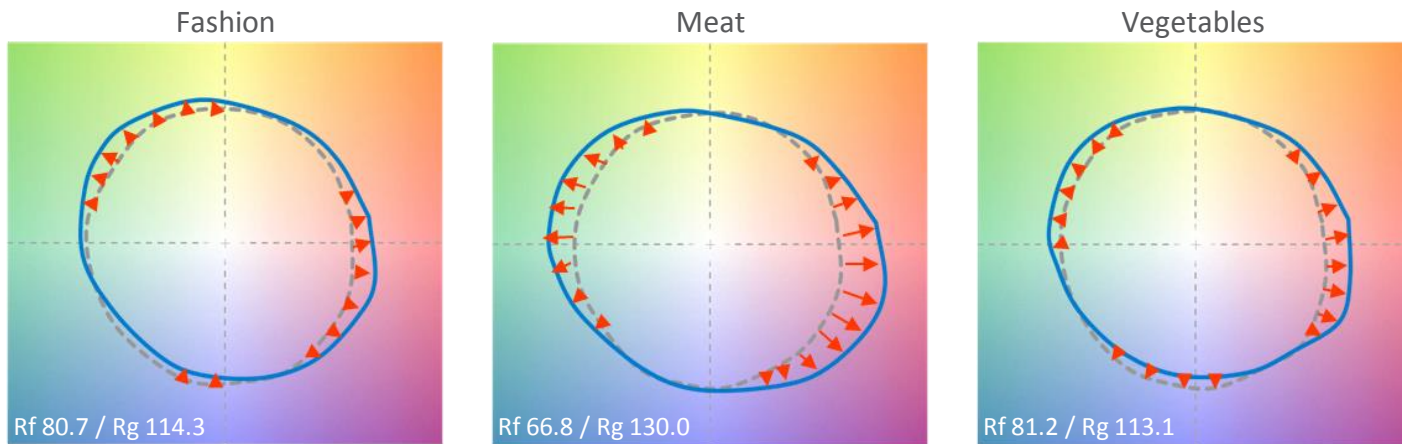
# Increasing Demand for High Color Quality

*“Carefully tuned light intensity and colors can effectively influence the customer behavior. It can entice customers to stay longer in stores and drive sales increases”*



# The Best Special Color with Spectral Engineering

Enriching color expressions with spectrum designing and TM-30 analysis



Key

All saturated color↑

Red saturated color↑

Green & Red saturated color↑

**Samsung**

**Clean  
Elegant  
Vividness↑**

**Fresh (Red)  
Delicious (Red)  
Vividness↑**

**Fresh  
Delicious  
Vividness↑**

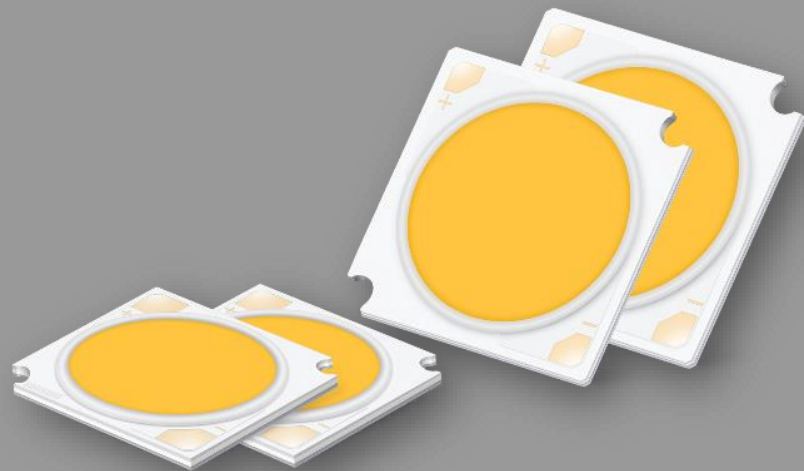
# Consumer Preference Test on the Lighting Color

- Subjects: 233 people aged from 19 to 60
- Conditions: 24 types of lightings (4 references, 20 proto samples)
- Objects: consumer goods (clothes, meat, vegetable and color samples)
- Rating questions: clear, vivid, preferences of purchase, like/dislike, etc.



# R-series

Enriched colors for displaying



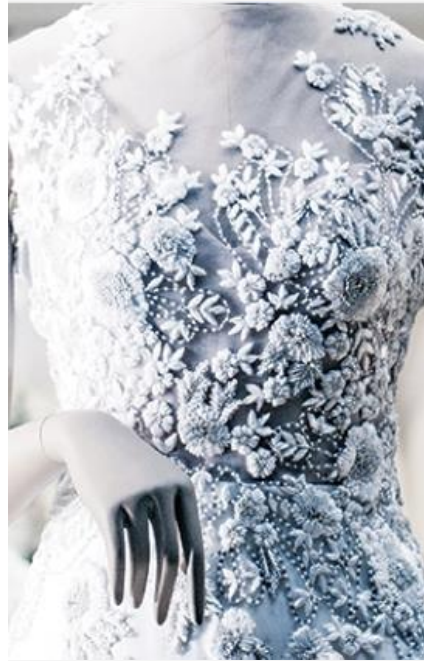


# Spectrum Line-up

Fashion Vivid Color



Fashion Vivid White



Meat



Vegetable

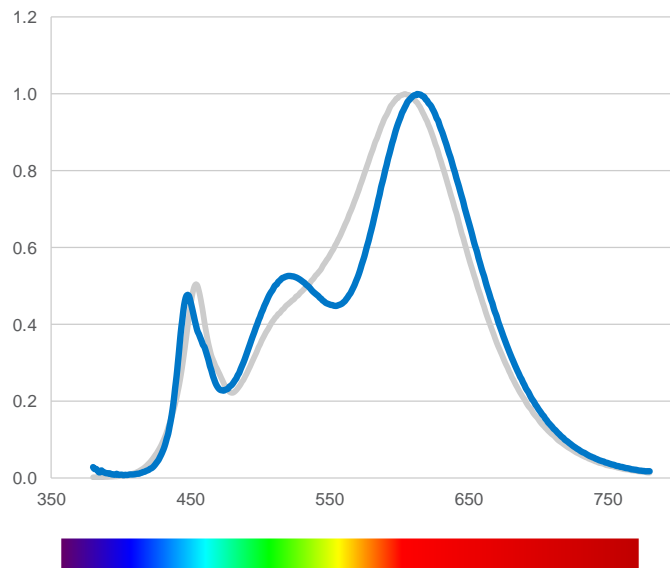


# Fashion Vivid Color

RGB primaries accentuated with reduced yellow, sub-BBL\*



Application

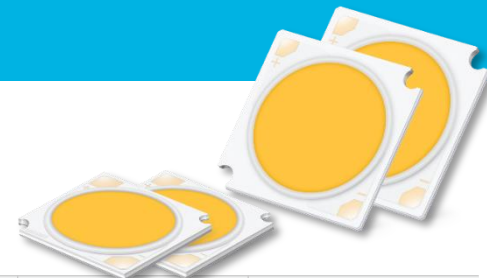


Spectrum

\* BBL: Black Body Locus

@ CRI90+, 3000K

# Fashion Vivid Color



R-series Fashion Vivid Color		13 W	16 W	19 W	26 W	33 W	40 W
PCB (LES) (mm)		13.5 x 13.5 (9.8)	19.0 x 19.0 (14.5)				28.0 x 28.0 (22.0)
Typ.	W	12.5	15.6	18.7	24.9	31.1	37.4
	mA	360	450	540	720	900	1080
Max.	W	34.5	43.1	51.8	69.0	86.2	103.5
	mA	920	1150	1380	1840	2300	2760
Typ. lm/W		109 (@ 26W)					
CCT (K)		3000 / 3300 / 3500 / 4000					
Color Rank		2 SDCM / 3 SDCM					

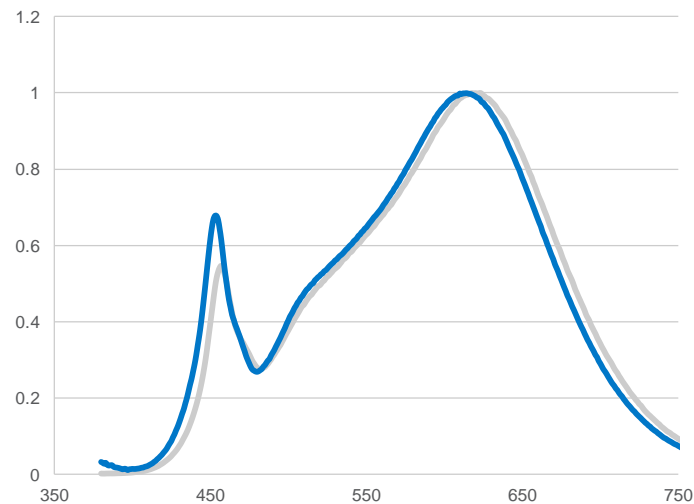


# Fashion Vivid White

Sub BBL coordinates realized to emphasize white



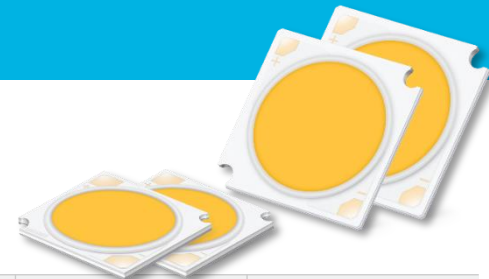
Application



Spectrum

@ CRI90+, 3000K

# Fashion Vivid White



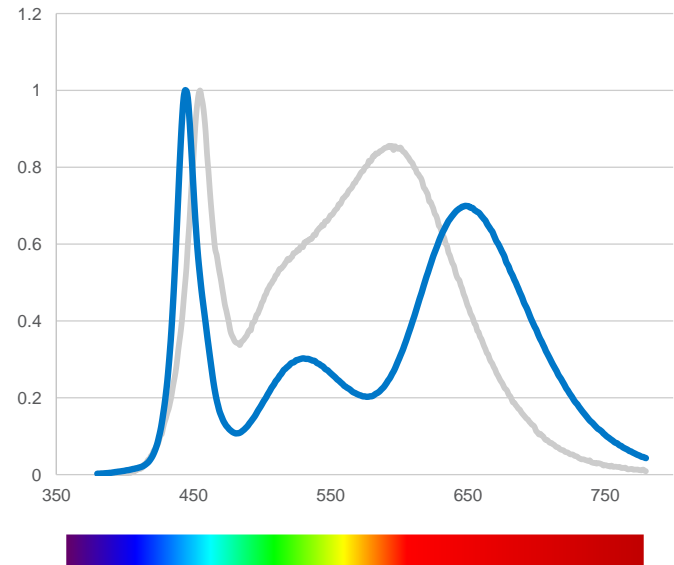
R-series Fashion Vivid White		13 W	16 W	19 W	26 W	33 W	40 W
PCB (LES) (mm)		13.5 x 13.5 (9.8)	19.0 x 19.0 (14.5)				28.0 x 28.0 (22.0)
Typ.	W	12.5	15.6	18.7	24.9	31.1	37.4
	mA	360	450	540	720	900	1080
Max.	W	34.5	43.1	51.8	69.0	86.2	103.5
	mA	920	1150	1380	1840	2300	2760
Typ. lm/W		117 (@ 26W)					
CRI		90+					
CCT (K)		3000 / 3500 / 4000					
Color Rank		3 SDCM					

# Meat

Pinpoints red and white to create a fresher look



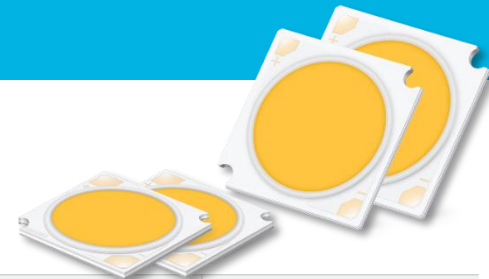
Application



Spectrum

@ 4000K

# Meat



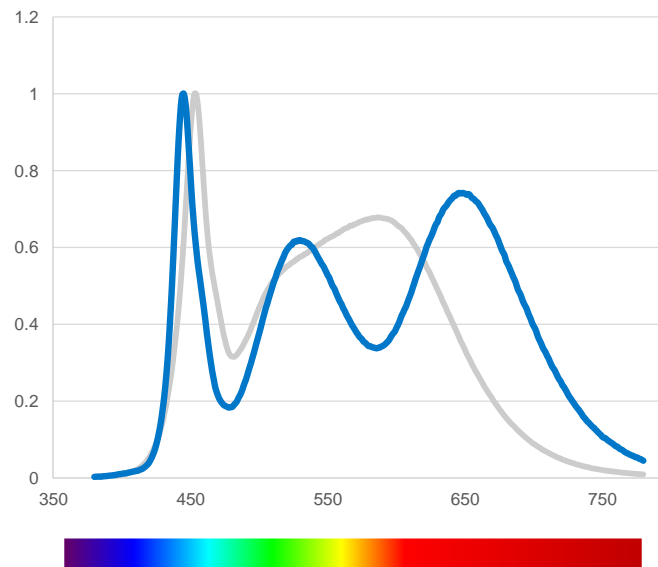
R-series Meat		13 W	16 W	19 W	26 W	33 W
PCB (LES) (mm)		13.5 x 13.5 (9.8)	19.0 x 19.0 (14.5)			
Typ.	W	12.5	15.6	18.7	24.9	31.1
	mA	360	450	540	720	900
Max.	W	34.5	43.1	51.8	69.0	86.2
	mA	920	1150	1380	1840	2300
Typ. lm/W		74 (@ 26W)				
Color Rank		2 SDCM				

# Vegetable

Highlighting RGB primaries to demonstrate various colors



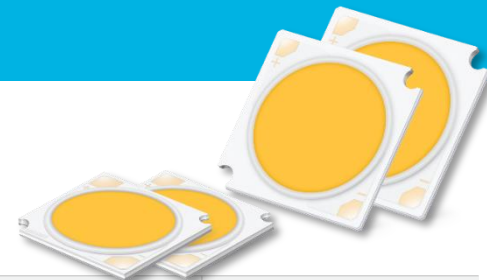
Application



Spectrum

@ 5000K

# Vegetable



R-series Vegetable		13 W	16 W	19 W	26 W	33 W
PCB (LES) (mm)		13.5 x 13.5 (9.8)	19.0 x 19.0 (14.5)			
Typ.	W	12.5	15.6	18.7	24.9	31.1
	mA	360	450	540	720	900
Max.	W	34.5	43.1	51.8	69.0	86.2
	mA	920	1150	1380	1840	2300
Typ. lm/W		96 (@ 26W)				
Color Rank		2 SDCM				



**Thank you**