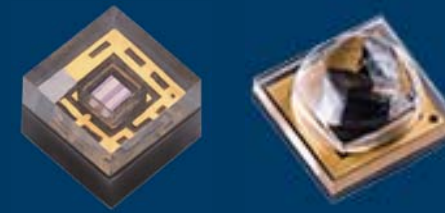
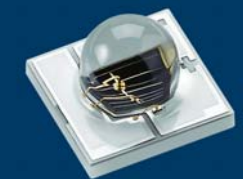


LIGHT FOR LIVING



LIGHT FOR WORKING



LIGHT FOR HEALTH



CONTACT US

Luminus Devices, Inc.

US Headquarters
1145 Sonora Ct.
Sunnyvale, CA 94086, USA
Tel: +1 (408) 708-7000
Fax: +1 (408) 245-2546
sales@luminus.com
www.luminus.com

Luminus Devices, Inc (Xiamen)

Operations Office
No. 1721 Lvling Road, Xiamen, Fujian, China
Ning Fang: +86-13606901640
Tel: +86-592-5500727
nfung@luminus.com



Luminus Product Catalog Specialty Lighting

2021.V1



Company Introduction

- Headquartered in Silicon Valley (Sunnyvale, CA, USA)
- Branches: Xiamen (China), Shenzhen (China), Hsinchu (Taiwan), Eindhoven (The Netherlands)
- Founded in 2002 to commercialize technology developed at M.I.T.
- Leadership in very-high-power density LEDs that enable exceptional focusing of light
- Broad range of white and monochromatic solutions for general illumination and specialty lighting markets
- Global applications support

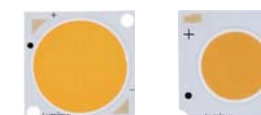
Light for Working

- Solutions ranging from Ultra-Violet to Infrared with input powers from 1W to over 100W
- High-intensity specialty LED (up to 5A/mm²) replacing performance lamp technologies such as Xenon, Metal Halide
- Extensive offering for specialty lighting markets including:
 - Horticulture and Farming
 - Projection, Stage, Entertainment and Studio
 - Medical, Industrial
 - Non-visible: UV curing, Purification/Disinfection, Infra-Red



Light for Living

- High quality of light and industry-leading efficacy engineered in Silicon Valley
- Widest range of COB sizes and CCT/CRI combinations
- Unique 1616 midpower LEDs with wide viewing angle and 95+ CRI
- Dynamic COBs for human centric lighting
- Unique and custom spectra available



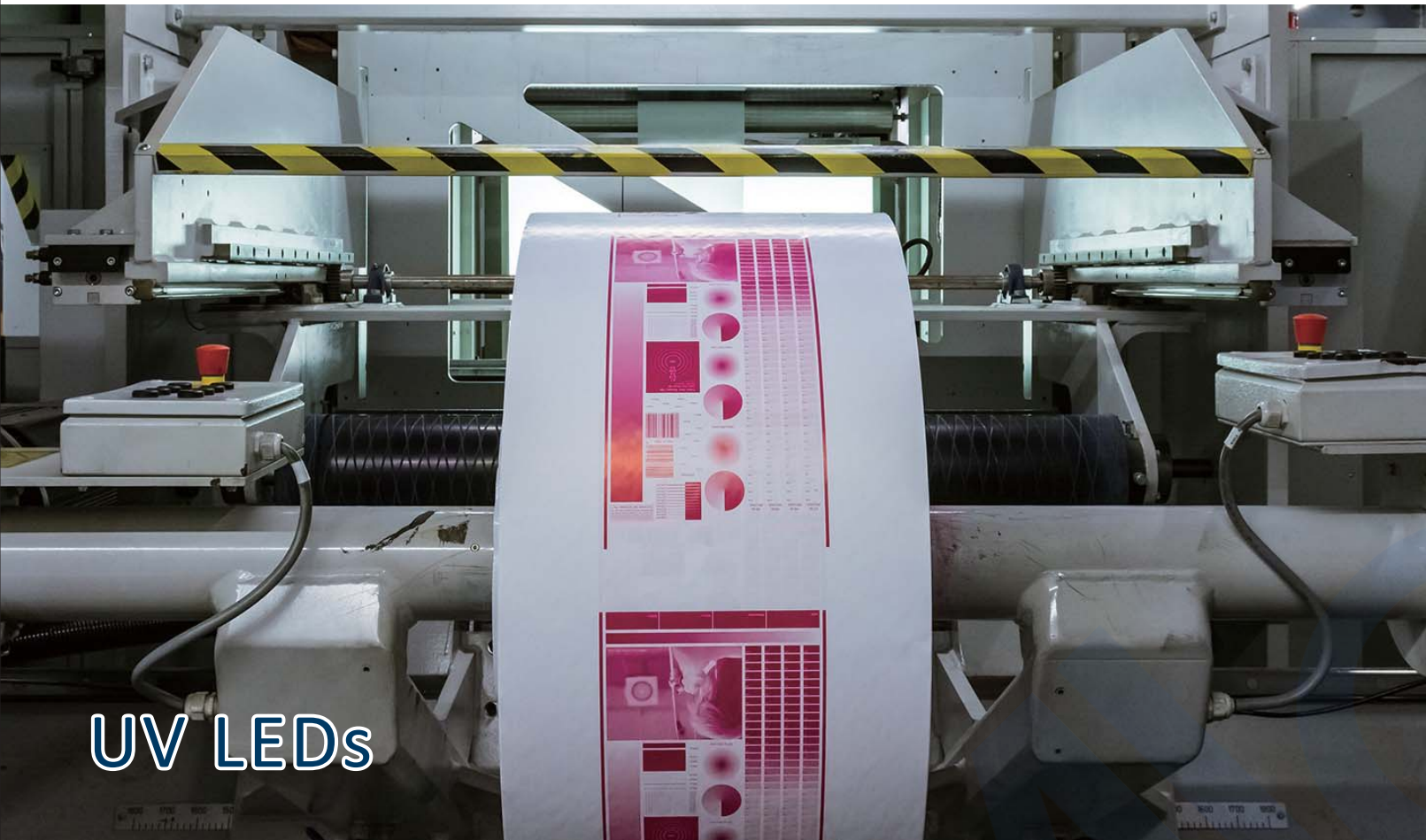
Specialty Lighting at Glance

Category	Applications	*Representative Products
UV-A & UV-C LEDs	UV Curing	SST-UV, SBM-UV 
	3D Printing & Industrial	SBT-UV, CBM-UV 
	Medical & Life Science	CBT-90-UV 
	Disinfection & Sterilization	XBT-UV, XST-UV, XFM-UV 
Projection & Color LEDs	Projection & Machine Vision	SFT, PT/PTM, CBT-Color 
	Stage, Architectural & Urban	SST, SFT, SBM-Color 
	Medical & Life Science	CBT, CBM, CFT 
Specialty White LEDs	Illumination, Stage, Portable & Medical	SST-W, SFT-W, CFT-W 
Horticulture LEDs	Photosynthesis(450, 660, 730nm and White)	SST, Mid-Power Family 
Infrared LEDs	Surveillance & 3D Mapping(810, 850 and 940nm)	SST Family 
	Bio-medical(780, 810nm)	SST, CBM Family 

(*) For your actual applications, please feel free to contact us for more suitable recommendations.

Contents

	UV LEDs	01
	Projection & Color LEDs	04
	Specialty White LEDs	08
	Horticulture LEDs	10
	Infrared LEDs	13
	Applications Engineering Support	15
	Ecosystem Partners	17



UVA LEDs

UV LEDs

- Ranging from 365 to 420nm
- Selection of SMD & COB types
- Ultra-High UV power with high-end vertical chip
- High conductivity copper coreboard and ceramic
- Up to 80W for UV curing, 3D printing & lithography

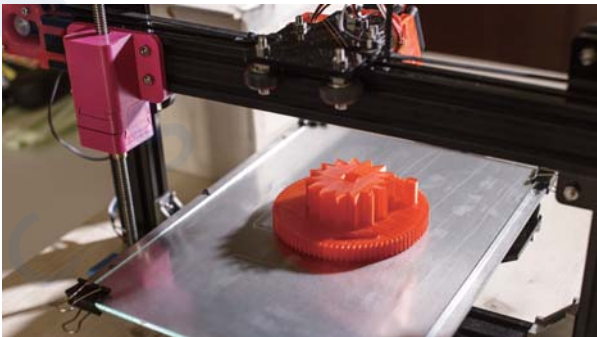


Image	Product	Wavelength	Package (mm)		Viewing Angle	Current (Specified~Max. A)	Typical Flux (W) @Specified/Max If
	CBM-25X	385nm	MCPCB	26.5*16	120°	1~4	3.2~9.6
		405nm					2.8~8.2
	CBM-50X	365nm		26.5*16	120°	2~6	4.4~9.5
		385nm				2~8	6.3~18.9
		405nm					5.5~16.8
	CBT-90	405/415nm		28*26.75	120°	18~27	17W~
	CBM-120	365nm		28*26.75	120°	9~18	10.3~18.4
		385nm				9~24	14.4~
		405nm					12.8~30
	CBM-160X	365nm		32*32	120°	3~9	13.2~28.4
		385nm				3~12	18.9~60.5
		405nm					16.5~52.8
	SST-10	365nm	SMT	3.45*3.45	130°	0.5~1	0.875~1.53
		385nm				0.5~1.5	1.015~2.79
		395nm					1.015~2.79
		405nm					0.93~2.56
	SBT-10X	365nm		3.5*3.5	120°	1~3	1.1~2.4
		385/395nm				1~4	1.6~4.8
		405nm					1.4~4.2
	SBM-120	365nm		11.0*10.0	120°	2.25~4.5	10.6~18.6
		385nm					15.3~34.4
		395nm					15.6~35.1
		405nm					12.9~29

COB



CBM-25X

CBM-50X

CBT-90



CBM-120

CBM-160X

SMD

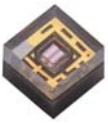


SST-10

SBT-10X



SBM-120



XBT-1313

XBT-3535

XST-3535

XFM-5050

UVC LEDs

UV LEDs

- Portfolio ranging 3mW to 400mW
- SMD type for easy integration
- Viewing angle ranging 60° to 150°
- Eco-friendliness disinfection, water & air purification



Image	Product	Wavelength	Package (mm)		Viewing Angle	Current (Specified~Max. mA)	Typical Flux (mW) @Specified / Max If
	XBT-1313	270~280nm	SMT	1.3*1.3	150°	40~100	5~12
	XBT-3535	270~285nm		3.5*3.5	130°	350~800	40~90
	XST-3535	270~285nm		3.5*3.5	60°		45~101
	XFM-5050	270~285nm		5.0*5.0	130°	500~800	140~190 220~280 320~400



Projection, Color & Color Mix

Monochromatic COB

PT-26

PT-39 L21

PT-39 L51

PTM-40X

PT-120

PT-121

CBT-90

CFT-90

CBM-120

Monochromatic SMD

SFT-10

SFT-14

SFT-20

SST-10

SST-20

SBT-70

SBT-90

Color Mix SMD

SBM-40 LC

SBM-40 SC

SBM-40 HC

Projection LEDs

Projection, Color & Color Mix

- Drive condition up to CG&B 6A/mm², RA @4A/mm²
- Solutions optimized for 0.2x'', 0.3x'' & 0.4x'' projection panels
- Combined high performance and high reliability



Image	Product	Color		Package (mm)		Viewing Angle	Current (Specified~Max. A)	Typical Flux (lm) @Specified/Max If
	PT-26	B	452nm	COB	21.0*15.5	120°	10.4~13	230~253
		CG	545nm					3100~3530
		RA	613nm					870
	PT-39 L21	B	460nm		26.5*16	120°	5.9~9.8	210~300
	PT-39 L51	DR	650nm		21.85*15	120°	7.5~10	2.7~4W
		G	520nm					2.7~4W
	PTM-40X	B	452nm		21.0*15.5	120°	8~10	400~445
		CG	555nm					5600~6270
		RA	613nm					1520
	PT-120 PT-121	B	460nm		28*26.75	120°	18~30	620~860
		G	525nm					3640~5200
		RAX	613nm					1485~2650
	SFM-06X	B	455nm	3030 EMC	3.0*3.0	120°	0.5~1	23~40
		RA	613nm					78~141
	SFT-10	B	455nm	3535 EMC	3.50*3.50	120°	0.7~4	34~119
		CG	555nm					305~1140
		RA	613nm				0.7~3	120~348
	SFT-14	B	455nm		3.50*3.50	120°	0.98~5.6	45~166
		CG	555nm					490~1720
		RA	613nm				0.98~4.2	158~513
	SFT-20	B	455nm		3.50*3.50	120°	1.4~8	80~265
		CG	555nm					520~1820
		RA	613nm				1.4~6	240~615

Color LEDs

Projection, Color & Color Mix

- Monochromatic high power COB & SMD designs
- Excellent match to 3-7mm optical fiber bundles
- Stage, architectural & machine vision lighting
- Unique solutions for medical imaging and diagnosis



Image	Product	Color		Package (mm)		Viewing Angle	Current (Specified~Max. A)	Typical Flux (lm) @Specified/Max If
	SST-10	B	450nm	SMT	3.45*3.45	90°,130°	0.35~1.5	630~2160mW
		SB	470nm					41~147
		G	527nm					148~421
		R	621nm					71~284
		DR	660nm					410~1640mW
	SST-20	B	450nm		3.45*3.45	120°	0.35~3	710~3910mW
		DR	660nm				0.35~2	460~2575mW
	SBT-70	B	445nm		11.0*10.0	120°	10.5~14	200~240
		G	530nm					2100~2520
	SBT-90	R	620nm		11.0*10.0	120°	9~13.5	945~1350
	CBT-90	B	460nm	COB	28*26.75	120°	13.5~27	500~750
		G	527nm					2100~3360
		RX	620nm					1030~1130
	CFT-90	CG	579nm		28*26.75	120°	22.5~27	11~13.2W
	CBM-120	FR	730nm		28*26.75	120°	9~18	6.5~10.7W

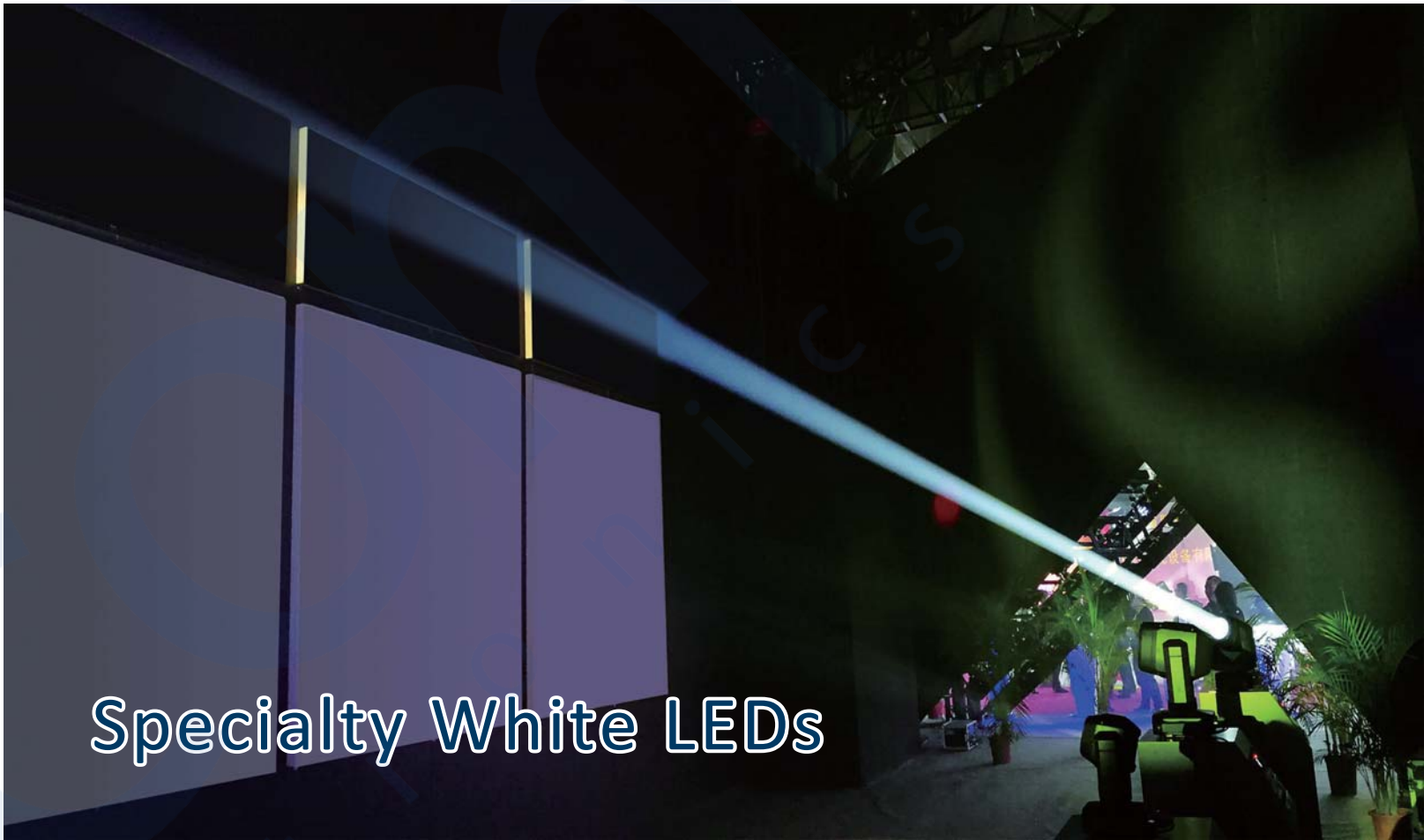
Color Mix LEDs

Projection, Color & Color Mix

- Available in RGBW combination
- Extremely narrow beam and high luminance
- For most moveable color-mix entertainment



Image	Product	Color		Package (mm)		Viewing Angle	Current (Specified~Max. A)	Typical Flux (lm) @Specified/Max If
	SBM-40 LC	R	622nm	SMT	5.75*4.68	120°	0.7~1	45~133
		G	527nm					112~281
		B	455nm					0.63~1.26W
		W	6500K					140~295
	SBM-40 SC	R	623nm	SMT	5.75*4.68	120°	1~2	90~253
		G	525nm					210~404
		B	454nm					1~2.3W
		W	6500K					210~543
	SBM-40 HC	R	625nm	SMT	5.75*4.68	120°	1~3	110~280
		G	525nm				1~4	220~720
		B	453nm					1.1~4.9W
		W	6500K					240~900
		R	625nm		5.75*4.68	120°	1~3	110~280
		G	525nm				1~4	220~720
		B	453nm					1.1~4.9W
		W	3000K				1~3	230~650

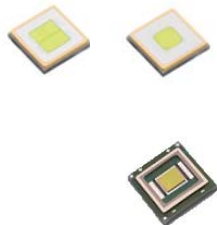
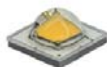


COB



- CBT-90
- CFT-90
- CBT-140

SMD



- SST-20
- SST-40
- SST-70X
- SFT-40
- SFT-70X
- SBT-90

Specialty White LEDs

Specialty White LEDs

- Monolithic emitters for best directionality and artifact-free far field
- CBT/CFT COB series ideal for fiber illumination and XENON/HID replacement in Medical, Life Sciences and Machine Vision applications
- SST series deliver superior directionality and throw distance for applications including battery-powered devices, work lights, after-market and stage
- SFT series for maximum throw distance or applications requiring optical coupling



Image	Product	CCT	Package (mm)		Viewing Angle	Current (Specified~Max. A)	Typical Flux (lm) @Specified/Max If
	SST-20	5000-6500K	SMT	3.45*3.45	120°	1.5~3	585~1000
		2700~4000K, 95 CRI				0.35~2	107~607
	SST-40	5000/5700K		5.0*5.0	120°	1.5~6	619~1806
		6500K					658~1919
	SFT-40	6500K		5.0*5.0	120°		614~1806
	SST-70X	6500K		5.0*5.0	120°	1.5~5.25	1241~3327
	SFT-70X	6500K		5.0*5.0	120°	1.5~7	1120~3363
	SBT-90	5700K		11.0*10.0	120°	9~18	3100~5400
	CBT-90	5700/6500K		28*26.75	120°		1830~2928
	CFT-90	5700/6500/7800K	COB	28*26.75	120°	22.5~27	4800~5280
		6000K					2900~3190
	CBT-140	5700K, 92 CRI		28*26.75	120°	21~28	2260~2780
		6500K					4200~5000



Horticulture LEDs

- Complete lineup from UV-C (280nm) to Far red (730nm)
- High-Power, Mid-Power and COB LED solutions
- Most LEDs meet DLC horticulture requirements (Q90 >36,000 hours)

SMD



SST-10



SST-20

MidPower



MP-2835



MP-3030

COB



CXM-14

CXM-22

CLM-22

CXM-32

Horticulture LEDs

Horticulture LEDs

- Selection of SMD, Midpower & COB series
- High PPF efficacy across plant’s life-cycle
- Midpower LEDs used for optimal PPF/W and low PPF/\$
- High power LEDs used to boost spectrum at 660nm and 730nm
- COB LED horticulture product line used for compact fixtures



Image	Product	Wavelength	Viewing Angle	Current (Test ~Max. A)	Typical lm/mW @test	WPE /LPW	PPF(μmol/s) PPF/W (μmol/J) 360-830nm	PPF(μmol/s) PPF/W (μmol/J) 400-700nm
	SST-10-UV	365nm	130	0.5~1	- /875	49%	2.69/1.49	0.07/0.04
		385nm			- /1015	60%	3.30/1.94	0.54/0.32
		395nm			- /1015	62%	3.36/2.04	1.15/0.70
		405nm			- /930	56%	3.16/1.92	2.31/1.40
	SST-10-B	450nm	90/130	0.35~1.5	21/630	62%	2.38/2.34	2.37/2.33
	SST-20-B	450nm	120	0.35~3	23/710	72%	2.68/2.73	2.67/2.72
	SST-10-SB	470nm	90/130	0.35~1.5	44/570	57%	2.25/2.26	2.25/2.26
	SST-10-G	530nm	90/130		148/270	27%	1.21/1.19	1.21/1.19
	SST-10-R	630nm	90/130	0.35~1.5	73/330	45%	1.73/2.35	1.73/2.35
	SST-10-DR	660nm	90/130		60.8/420	57%	2.3/3.13	2.3/3.13
	SST-20-DR	660nm	120	0.7~2	93/920	61%	5.52/3.67	5.52/3.67
	SST-10-FR	730nm	90/130	0.35~1.5	- /320	44%	1.94/2.64	0.14/0.19
	MP-2835-12D2	30-80	-	65~180mA	35	200lm/W	0.54/3.09	0.51/2.93
		40-80			37	212lm/W	0.55/3.12	0.52/2.99
		50-80			37	212lm/W	0.55/3.13	0.53/3.03
	MP-3030-120H	40-80	-	65~400mA	39.5/123	227lm/W	0.58/3.34	0.56/3.20
		50-80			39.5/126	227lm/W	0.58/3.35	0.57/3.24

Image	Product	Color	Current (Test ~Max. A)	Typical lm/mW @test	WPE /LPW	PPF(μmol/s) PPF/W (μmol/J) 360-830nm	PPF(μmol/s) PPF/W (μmol/J) 400-700nm
	CXM-14-HS-11-36-AC30-P1-7	Purple	0.72~1.23	1160/10.3	42%	53.5/2.19	45/1.84
	CXM-14-HS-12-36-AC30-P1-7		0.72~1.23	1100/9.8	40%	51/2.08	43/1.76
	CLM-22-HS-11-36-AC30-P1-7		1.1~1.86	1861/16.9	46%	86/2.31	73/1.96
	CLM-22-HS-12-36-AC30-P1-7		1.1~1.86	1749/15.7	42%	81/2.18	68/1.83
	CXM-22-HS-11-54-AC30-P1-7		1.1~1.86	2680/24.5	44%	124/2.21	105/1.87
	CXM-22-HS-12-54-AC30-P1-7		1.1~1.86	2518/22.8	41%	117/2.09	98/1.75
	CXM-14-HM-61-36-AC30-P1-7	White	0.72~1.44	2112/10.5	43%	52/2.13	46.6/1.90
	CLM-22-HM-61-36-AC30-P1-7		1.1~2.2	3491/17.3	45%	86/2.26	77.1/2.02
	CXM-22-HM-61-54-AC30-P1-7		1.1~2.2	4990/24.7	44%	123/2.17	110/1.94
	CXM-32-HM-61-54-AC30-P1-7		2.2~4.4	9685/48.0	43%	239/2.13	214/1.91

- Please refer to our online Horticulture Calculator to select optimized solutions for you.
<https://calculator.luminus.com/horticulture>

Horticulture

Luminus Horticulture LEDs offer industry leading performance in term of PPF (Photosynthetic Photon Flux) and PPF/W metrics and come in a variety of package types ranging from mid-power to high power LEDs.

Instructions:

- Choose LED Family, LED Part Number, Number of LEDs, Current, and Temperature and click the calculate button for output.
- Out of range input will result in an error message.
- Save is only functional for logged in users. **Warning:** Logging in will erase any data on the screen. Login before attempting to save.

LED Family	LED	Number of LEDs	Current(mA)	Junction Temperature(°C)	Forward Voltage(V)	Electrical Power(W)	Optical Power(W)	Wall Plug Efficiency(%)	PPF (umol/s) (400-700nm)	PF (umol/s) (300-830nm)	PPF/W (400-700nm)	PF/W (300-830nm)	PPF% (300-830nm)
Product Family	Part Number												
Product Family	Part Number												
Product Family	Part Number												
Product Family	Part Number												
Product Family	Part Number												



Infrared LEDs

SMD



SST-05



SST-06



SST-10

COB



CBM-90



CBM-120

Infrared LEDs

Infrared LEDs

- Selection of 780, 810, 850 & 940nm
- Ultra-High IR power with dual-junction chip & 5A current density
- Best-in-class SMD products with solder pad compatibility to industry standard high-power LEDs
- For night vision, automotive & bio-medical applications



Image	Product	Wavelength	Package (mm)		Viewing Angle	Current (Specified~Max. A)	Typical Flux (W) @Specified/Max If
	SST-05	850nm	SMT	3.45*3.45	40°, 70°	0.35~1	0.295~0.770
	SST-06	810nm, IRD		3.45*3.45	80°		0.475~1.235
	SST-10	850nm		3.45*3.45	90°, 130°	0.35~1.5	0.3~1.2
		940nm			90°, 130°		0.25~1
		810nm, IRD			90°, 130°		0.535~2.14
		850nm, IRD			50°, 90°, 130°		0.58~2.32
		940nm, IRD					0.535~2.14
	CBM-90	780nm, IRD	COB	28*26.75	120°	13.5~18	10~13
		850nm, IRD					13~16.9
		940nm, IRD					
	CBM-120	730nm		28*26.75	120°	9~18	6.3~11.8

Applications Engineering Support

- Luminus provides 5 kinds of online resources to commit global applications support.
 - Application Notes: Guidelines when handling Luminus's various product lines
 - Design Files: Mechanical model, ASAP, LightTools, TracePro and Zemax.
 - Development Kits: Available for purchase to evaluate a wide range of configurations and operating modes
 - Ecosystem Solutions: Luminus has partnered with experts in developing and manufacturing LED components and light engines in an effort to assist our customers in expediting time to market.
 - Lumen Calculator: To aid in the selection of an optimized solution which fits within the constraints and requirements of each customer's application.
- <https://www.luminus.com/resource/application-notes>



Luminus DK-236 Development Kit



70 x 70 x 35 mm
(including fan)

CBM-90 IR / IRD	CBT-39 UV / W	CFT-90 W / CG	PT-26 B / CG / RA	SBT-70 B / G
CBM-120 UV / FR	CBT-90 W / B / G / R UV		PT-39-TE B / G / DR	SBT-90 W / R
	CBT-140 W		PTM-40 B / CG / RA	
			PT-50 B / CG / RA	
			PT-54 B / G / RAX	
			PT-120/121 B / G / RAX	

LVHC-LPW150/1-CC36K-18

- Cuvée LVHC150 Driver, heat sink and cables
- Up to 36A pulsed operation
- Output up to 18V
- Drives LEDs up to 150W

Applications Engineering Support

- Visit our Applications and Resources pages for support information.

