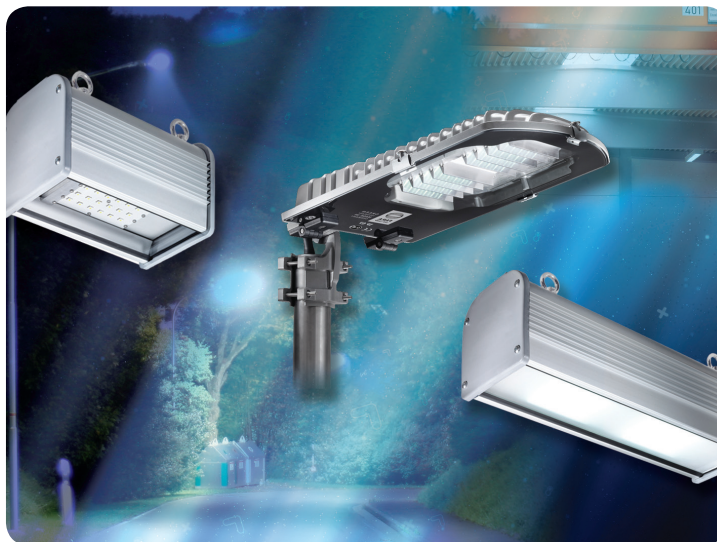




LED MODULES

Vishay Semiconductors



Designed to replace fluorescent lights in commercial, industrial, and residential applications; for backlighting signage; and for automotive applications.

RESOURCES

- For technical questions contact LED@vishay.com
- For information on all Optoelectronic products - <http://www.vishay.com/optoelectronics/>
- SMD LED Selector Guide - <http://www.vishay.com/doc?49764>
- Worldwide Sales Contacts - <http://www.vishay.com/company/contacts/#sales>

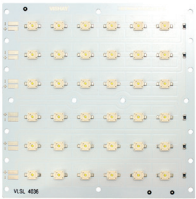

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components



LED MODULES

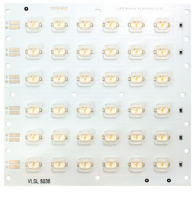

Vishay Semiconductors



Optoelectronics - Energy Saving LED Lighting

Dimensions 135 mm x 135 mm	White Color	Part Number	Color Temperature (°K)	Matrix (R x C)	LEDs	Viewing Angle (°)	Luminous Flux ¹ (lm)	Reflectors	Driver
 	Cool	VLSL4012A	5000 to 7000	2 x 6	12	160	2100	VLSL-REFL01 up to 6 per panel	VLLDU-1-30W
		VLSL4024A		4 x 6	24		4200		
		VLSL4036A		6 x 6	36		6300		
	Neutral	VLSL4112A	4000	2 x 6	12	160	1600		
		VLSL4124A		4 x 6	24		3200		
		VLSL4136A		6 x 6	36		4800		
	Warm	VLSL4212A	3500	2 x 6	12	160	1500		
		VLSL4224A		4 x 6	24		3000		
		VLSL4236A		6 x 6	36		4500		

¹I_F = 700 mA x Number of Rows

²In Qualification

Dimensions 135 mm x 135 mm	White Color	Part Number	Color Temperature (°K)	Matrix (R x C)	LEDs	Viewing Angle (°)	Luminous Flux ¹ (lm)	Reflectors	Driver
 	Cool	VLSL5012A	5000 to 7000	2 x 6	12	120 x 70 Butterfly Pattern	1740	VLSL-REFL01 up to 6 per panel	VLLDU-1-30W
		VLSL5024A		4 x 6	24		3480		
		VLSL5036A		6 x 6	36		5220		
	Neutral	VLSL5112A	4000	2 x 6	12	120 x 70 Butterfly Pattern	1500		
		VLSL5124A		4 x 6	24		3000		
		VLSL5136A		6 x 6	36		4500		

Dimensions 40 mm x 40 mm	White Color	Part Number	Color Temperature (°K)	Matrix (R x C)	LEDs	Viewing Angle (°)	Luminous Flux ¹ (lm)	Reflectors	Driver
 	Cool	VLPC0303A2	5000 to 7000	3 x 3	9	160	1590	(not available)	VLLDU-1-30W
	Warm	VLPW0303A2	3500				840		

¹I_F = 700 mA x Number of Rows

²In Qualification

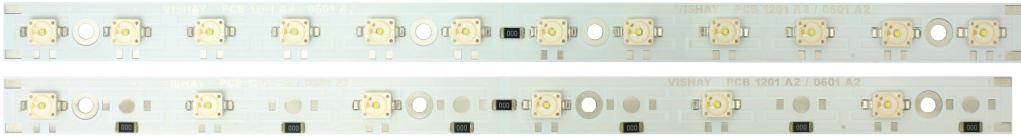


LED MODULES

Vishay Semiconductors

Optoelectronics - Energy Saving LED Lighting

White Color	Part Number	Color Temperature (°K)	Matrix (R x C)	LEDs	Viewing Angle (°)	Luminous Flux ¹ (lm)	Reflectors	Driver
Cool	VLPC0601A2	5000 to 7000	1 x 6	6	160	1050	(not available)	VLLDU-1-30W
	VLPC1201A2		2 (1 x 6)	2 (6)		2100		
	VLPC1201A2J		1 x 12	12		2 x 1050		



240 mm x 14 mm



120 mm x 14 mm

I_F = 700 mA x Number of Rows

Dimensions 135 mm x 95 mm	White Color	Part Number	Color Temperature (°K)	Matrix (R x C)	LEDs	Viewing Angle (°)	Luminous Flux ¹ (lm)	Reflectors	Driver
	Cool	VLSL3012A2	5000 to 7000	2 x 6	12	160	2100	VLSL-REFL01 up to 5 per panel	VLLDU-1-30W
		VLSL3024A2		4 x 6	24		4200		
	Neutral	VLSL3112A2	4000	2 x 6	12		1600		
		VLSL3124A2		4 x 6	24		3200		
	Warm	VLSL3212A2	3500	2 x 6	12		1500		
		VLSL3224A2		4 x 6	24		3000		

¹I_F = 700 mA x Number of Rows

²In Qualification



LED MODULES

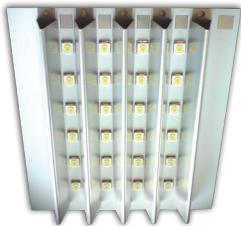
Vishay Semiconductors

Optoelectronics - Energy Saving LED Lighting

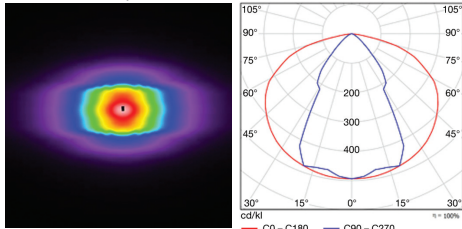
Reflectors

VLSL-REFL01

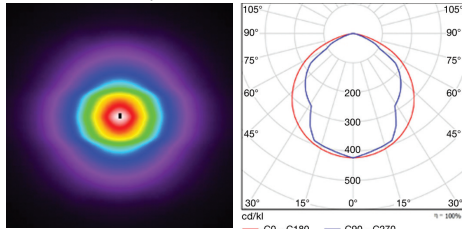
Aluminum alloy reflectors are provided to enable you to control the viewing angles and the pattern of illumination. As shown below, without reflectors the viewing angle is 120°. This viewing angle can be tightened to 55° with the use of the reflectors.



With reflectors, pattern is 55° x 120° oval



Without reflectors, pattern is ~120° cone



Driver

VLLDU-1-30W

- Single channel LED driver
- Suitable to drive up to 12 InGaN LEDs in series
- Input voltage: 6 V to 48 V
- Output current: typ. 350 mA or 670 mA selectable via jumper (other output currents can be customized)
- 2 % output current accuracy, typical
- Dimmable via PWM or DC voltage
- Inherent open-circuit LED protection
- Dimensions in mm (l x w x h): 35 x 14 x 6
- PCB material: FR4 with white top-coat lacquer
- 91 % efficiency (LED string with 6 LEDs at 670 mA), typical

