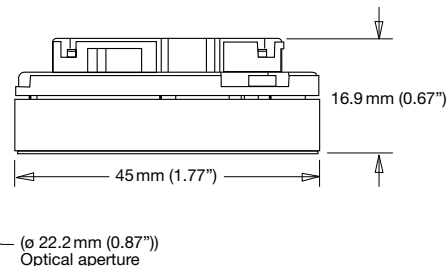
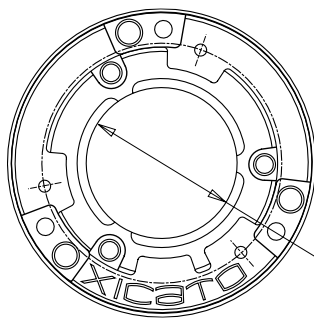


XSM Vibrant Series™ LED Module

Corrected Cold Phosphor Technology®



Specification Features

Physical Characteristics

Module Source Type: Corrected Cold Phosphor LED module. Dia. 45mm (1.77") x 16.9 mm (.67"). Optical Aperture Dia. 22.2mm (.87").

Maximum Case Temperature: 90 °C

Phosphor Proximity: Remote.

Module Weight: 54gm (1.9oz) (100ct box weight 6kg (13.2lbs)).

Interfaces: Base dia. 45mm (1.77"). Provision for accessory reflector attachment. Integral wire harness 24 AWG, 40cm, UL105°C, 300V. Mounting screws M3 x 0.5 x 12mm. Integral thermal pad: Nominal thermal conductivity 10W/m-K (through-plane), 150W/m-K (in-plane), .127mm thick.

Module Housing: Diecast aluminum construction with sealed glass aperture. IP66 rated.

Storage Temperature: -40°C to 85°C

Photometric Characteristics

Color Consistency - Initial: CCT +/- 50K, $\Delta u'v'$ +/- .001, 1 x 2 step MacAdam (1 x 2 SDCM). Below the BBL.

Color Rendering Index: Ra >= 80. R9 16, R12 62 (typical).

Gamut Area Index Black Body¹² (GAI_{BB}): 111.

Color Consistency - Maintained: C3 50,000hrs.¹¹

Lumen Maintenance: L70 50,000 hrs.⁴

Other

Regulatory: Modules UL recognized. RoHS compliant.

CE Compliant (IEC62031). IP66 (IEC60529).

Mercury Content: No mercury.

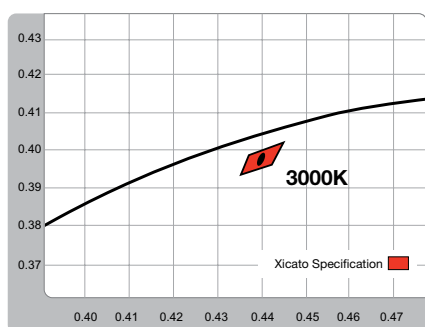
UV or IR Content: None.

Ordering Guide*

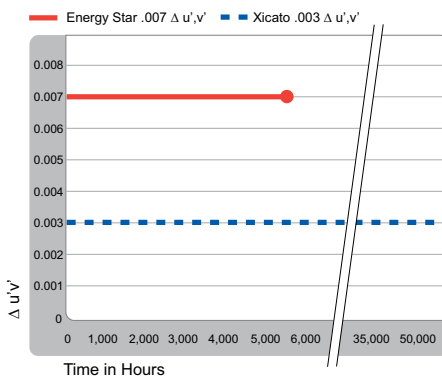
Luminous Flux	Part Number	Correlated Color Temperature
1300 lm	XSMV830-1300-C	3000K
2000 lm	XSMV830-2000-C	3000K
3000 lm	XSMV830-3000-C	3000K

* For a complete list of luminaires incorporating Xicato LED Modules and information on compatible drivers, heatsinks and reflectors, go to www.xicato.com. For XSM Artist series, refer to XSM Artist Series Data Sheet. For Standard series, refer to Standard Series Data Sheet.

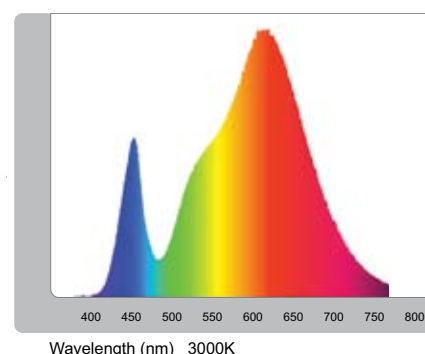
Color Consistency - Initial



Color Consistency - Maintained



Spectral Power Distribution



Color Rendering Index (Typical)

Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80	81	86	89	81	80	80	85	68	16	66	80	62	82	93	77

Technical Data

Lighting ¹								Electrical (constant current)															
Module	Part Number	Correlated Color Temperature ²	Color Rendering Index ³	Gamut Area Index ¹²	Color Consistency			Lumen Maintenance ⁴	Module	Drive Current ⁵	Forward Voltage ⁶			Power Consumption ⁷	Lumen Output ⁸ (Typical)	Efficacy (Typical)	Thermal Class ¹⁰						
		(CCT)	Ra	(GAI _{BB})	SDCM	CCT	Δ uv	hrs		mA	Min	Typ	Max	W	lm	lm/W							
1300 lm	XSMV830-1300-C	3000K	≥80	111	≤1 x2	± 50K	± 0.001	50k	1300 lm	1050	13.1	16.9	20.0	17.7	1300	73	F						
										700	12.7	16.2	19.2	11.3	930	82	D						
										500	12.3	15.8	18.7	7.9	700	89	C						
2000 lm	XSMV830-2000-C								1050	23.8	27.4	30.0	28.8	2000	2000 lm	350	12.1	15.4	18.3	5.4	500	93	B
																700	23.0	26.5	29.4	18.6	1420	77	F
																500	22.4	25.8	28.6	12.9	1070	83	E
3000 lm	XSMV830-3000-C								350	21.9	25.3	28.0	8.9	780	3000 lm	1050	37.3	42.9	46.8	45.0	3000	67	Q
																700	36.1	41.4	45.3	29.0	2220	77	K
																500	35.3	40.4	44.0	20.2	1660	82	G
		350	34.7	39.5	43.0	13.8	1210	88								E							

Notes:

- All lighting data shown in the above table is taken at a recommended operating test point (Tc) temperature of 70°C and highest rated drive current.
- '3000K' CCT is 2990K. CCT data ANSI/NEMA compliant.
- 'Ra' is defined as the average of color rendering indices R1-R8.
- XSM 3000lm long term testing in process.
- The module is designed for usage with a constant current power supply with an output current to 1100mA max.
- Voltage data based on 20°C to 90°C operating range. For operation outside this range, contact factory.
- Power consumption is stated as a typical value that is based on the typical range of forward voltage. Maximum and minimum power values can be calculated using the voltage range.
- Absolute range of lumen output is ±10% of typical value.
- Specifications subject to change without notice.
- Thermal compatibility classification: Contact Xicato for details.
- C3= <.003 Δ u'v'.
- GAI_{BB} is Gamut Area Index normalized to the black body locus and using all 15 standard CRI colors. Values are typical.

Recommended LED Module Specification

Physical Characteristics: LED module shall be remote phosphor, nominal 45mm (1.77") diameter, and aluminum and glass construction. Module shall be sealed, meeting IP66 requirements. Module shall be field-servicable.

Performance: LED module shall have a CRI (Ra) ≥80, R9 16, R12 62 and a gamut area index black body of 111. CRI values shall be +3/-0 points initial. LED module color points shall be within 1 x 2 SDCM initial. Flux output shall be measured at a minimum of 70 °C (±5°C).

General Requirements: LED module shall be UL recognized, CE compliant and RoHS compliant. Module shall be warranted for 5 years for catastrophic failure, lumen maintenance (≥L70), and color consistency (<.003 Δ u', v').

LED module shall be Xicato Module. # _____

About Xicato

Xicato is passionate about light. Light has an emotional effect on people and a direct impact on business profitability. It ultimately influences everything in our lives. Xicato is a recognized leader in creating LED modules that provide superior aesthetics, economics and durability. Xicato aspires to be the trusted partner of the global lighting design community and luminaire manufacturers.

For an overview of our customers' luminaires visit www.xicato.com.

For the best in lighting design, Xicato recommends a qualified lighting designer from the Professional Lighting Design Association (PLDA) or the International Association of Lighting Designers (IALD).

XICATO

