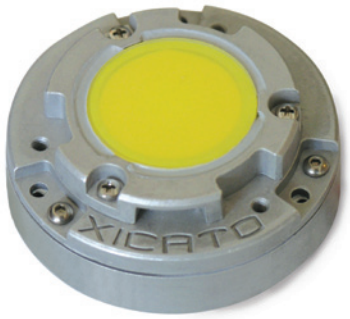
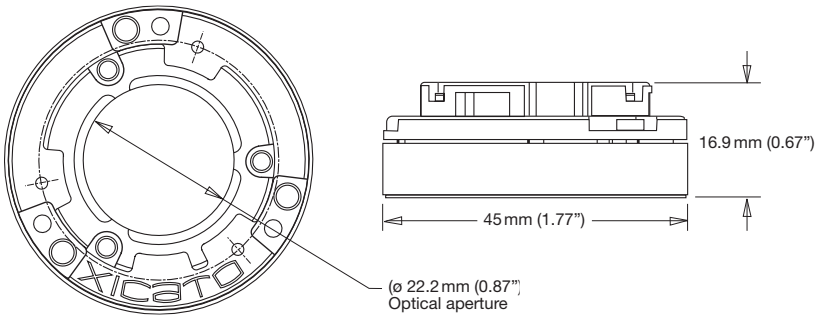
XSM 80 Series LED Module

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 ºC
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, UL105ºC, 300V. Mounting screws M2 x 0.4 x 14mm. Thermal interface: eGraph HT-1205A.
Module Housing: Diecast aluminum construction with sealed glass aperture. IP66 rated.
Storage Temperature: -40ºC to 85ºC

Photometric Characteristics

Color Consistency: CCT +/- 50K, Duv +/- .001, 1x2 step MacAdam (1 x 2 SDCM) along BBL.
Color Rendering Index: Ra: ≥ 80.
Color Rendering Index Consistency: +3/-0pts.
Module Life: Lumen maintenance L70/B50 50,000hrs.

Other

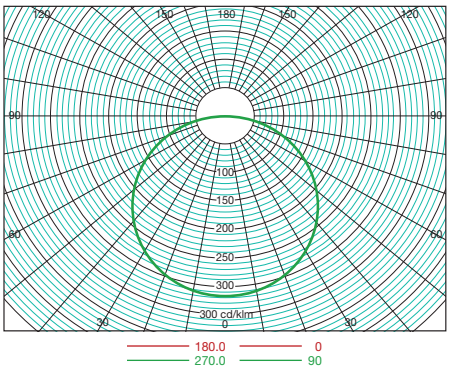
Regulatory: Modules UL recognized. RoHS compliant.
Mercury Content: No mercury.
UV or IR Content: None.

Ordering Guide*

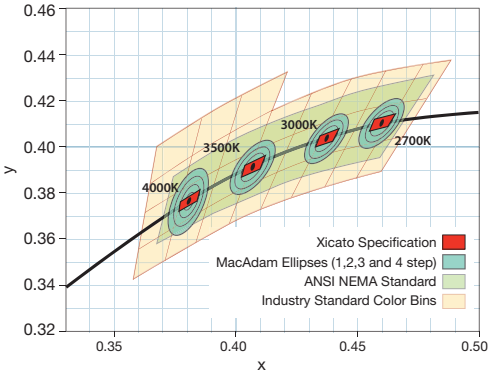
Luminous Flux	Part Number	Correlated Color Temperature
400 lm	XSM8027-400-B	2700K
	XSM8030-400-B	3000K
	XSM8040-400-B	4000K
700 lm	XSM8027-700-B	2700K
	XSM8030-700-B	3000K
	XSM8040-700-B	4000K
1000 lm	XSM8027-1000-B	2700K
	XSM8030-1000-B	3000K
	XSM8035-1000-B	3500K
	XSM8040-1000-B	4000K
1300 lm	XSM8027-1300-B	2700K
	XSM8030-1300-B	3000K
	XSM8035-1300-B	3500K
	XSM8040-1300-B	4000K
2000 lm	XSM8027-2000-B	2700K
	XSM8030-2000-B	3000K
	XSM8035-2000-B	3500K
	XSM8040-2000-B	4000K

* For a complete list of luminaires incoporating 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.

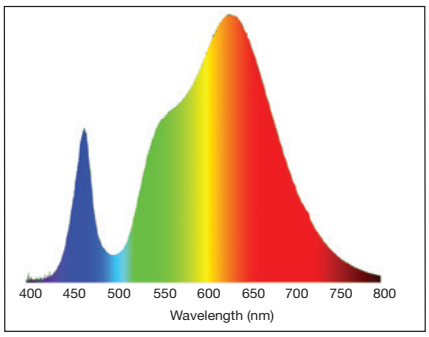
Photometric Performance



Color Consistency



Spectral Power Distribution



3000K

Color Rendering Index (Typical)

Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81	80	85	89	81	78	80	86	66	16	64	79	58	81	93	75

Technical Data

Lighting[1]								Electrical (constant current)								
Module	Part Number	Correlated Color Temperature	Color Rendering Index	Color Consistency			Lumen Maint-enance[4]	Module	Drive Current[5]	Forward Voltage[6]			Power Consump-tion[7]	Lumen Output[8] (Typical)	Efficacy (Typical)	Thermal Class[10]
		(CCT)[2]	Ra[3]	SDCM	CCT	Duv	hrs		mA	Min	Typ	Max	W	lm	lm/W	
400 lm	XSM8027-400-B	2700K	≥80	≤1 x 2	± 40K	± 0.001	50k	400 lm	700	8.3	9.0	9.8	6.3	400	63	B
	XSM8030-400-B	3000K			± 50K				500	8.0	8.7	9.5	4.4	290	67	B
	XSM8040-400-B	4000K			± 70K				350	7.8	8.6	9.3	3.0	220	73	A
700 lm	XSM8027-700-B	2700K	≥80	≤1 x 2	± 40K	± 0.001	50k	700 lm	700	12.5	16.3	19.0	11.4	700	61	D
	XSM8030-700-B	3000K			± 50K				500	12.2	15.8	18.2	7.9	550	70	C
	XSM8040-700-B	4000K			± 70K				350	12.3	15.2	17.7	5.3	400	75	B
1000 lm	XSM8027-1000-B	2700K	≥80	≤1 x 2	± 40K	± 0.001	50k	1000 lm	700	21.2	26.2	30.0	18.3	1000	55	G
	XSM8030-1000-B	3000K			± 50K				500	20.5	25.2	28.8	12.6	800	63	E
	XSM8035-1000-B	3500K			± 60K				350	20.0	24.4	27.9	8.5	580	68	C
	XSM8040-1000-B	4000K			± 70K											
1300 lm	XSM8027-1300-B	2700K	≥80	≤1 x 2	± 40K	± 0.001	50k	1300 lm	1000	16.4	21.4	22.9	21.4	1300	61	G
	XSM8030-1300-B	3000K			± 50K				700	16.0	20.9	22.2	14.6	1000	68	F
	XSM8035-1300-B	3500K			± 60K				500	15.3	20.5	21.7	10.3	720	70	D
	XSM8040-1300-B	4000K			± 70K				350	15.1	20.2	21.2	7.1	550	78	C
2000 lm	XSM8027-2000-B	2700K	≥80	≤1 x 2	± 40K	± 0.001	50k	2000 lm	1000	30.4	36.3	39.2	36.3	2000	55	M
	XSM8030-2000-B	3000K			± 50K				700	29.0	35.5	38.0	24.9	1500	60	J
	XSM8035-2000-B	3500K			± 60K				500	28.3	34.8	37.2	17.4	1100	63	F
	XSM8040-2000-B	4000K			± 70K				350	28.0	34.2	36.4	12.0	800	67	E

Notes:
1. 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.
2. '3000K' and '3500K' CCT's are 2950K and 3420K, respectively. CCT data ANSI/NEMA compliant.
3. 'Ra' is defined as the average of color rendering indices R1-R8.
4. Lumen maintenance is 50k hours based on L70/B50 criteria.
5. The module is designed for usage with a class 1 or class 2 constant current power supply with an output current up to 700mA (400lm/700lm/1000lm), or 1000mA (1300lm/2000lm). Current may vary ±10% without affecting lifetime performance.
6. Voltage data based on 20°C to 90°C operating range. For operation outside this range, contact factory.
7. 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.
8. Absolute range of lumen output is ±10% of typical value.
9. Specifications subject to change without notice.
10. Thermal compatibility classification: Contact Xicato for details.

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. CRI values shall be +3/-0 points initial. LED module color points shall be within 1 x 2 MacAdam Steps initial. Flux output shall be measured at a minimum of 70 ºC (±5ºC).
General Requirements: LED module shall be UL recognized, and RoHS compliant.
LED module shall be Xicato Module. #_____

Luminaire Thermal Validation Program and Warranty

The Xicato Luminaire Thermal Validation Program was developed to ensure that luminaires incorporating Xicato LED Modules perform properly and deliver quality light that meets customer requirements. Qualified luminaires carry limited 5 year warranty. For details on Xicato's Luminaire Thermal Validation Program and warranty, contact Xicato.

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

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