

XOB S Series

Light Source

- Up to 26% gain in both Flux and Efficacy over Gen 1
- Color point consistency 1x2 SDCM
- CCT 2700K to 4000K
- CRI 90 and 95
- LES sizes: 3mm, 4mm, 6mm, 9mm, 14mm
- Color & Flux Warranty
- UL & CE compliant

**New
Gen 2**

Xicato designs and develops light sources and electronics that enable architects, designers and building managers to create beautiful, smart spaces in which people love to live and work. With thousands of installations around the globe, Xicato continues to be a leading supplier of high quality lighting solutions. Xicato is defining the future of intelligent light sources by integrating electronics, software and connectivity. Founded in 2007, Xicato's headquarters is based in Silicon Valley and the company has offices in China, Europe and the US. For further information, visit xicato.com.

XOB S Series

XOB-2 is a Chip on Board (COB) LED light source compatible with industry standard holders, heatsinks, reflectors and lenses used in a variety of downlight and spot fixtures. XOB-2 S Series provides high quality light with best-in-class 1x2SDCM color consistency and superior performance and efficacy in common form factors. Leveraging the latest technology, XOB 2 provides a performance upgrade over previous generation allowing an easy transition for rapid fixture design and faster time to market. XOB-2 are optimized for all indoor lighting applications including downlights, spots, and track heads.

Regulatory and Warranty

Safety Compliance	UL 8750, CE, CSA
Environmental	RoHS, REACH Compliant
Warranty	5 Years
Rated Life	L70 > 50,000 Hours

Ordering Logic

Product Family	LES Size	CRI	CCT	Output Code	Series	Forward Voltage	Color Consistency	Generation
XOB	03 3.3mm	90 90 CRI	27 2700K	03 XOB03 Output	S S Series	36 36V	2 1x2 SDCM	2 Gen 2
	04 4.5mm	95 95 CRI	30 3000K	04 XOB04 Output				
	06 6.1mm		35 3500K	10 XOB06 Output				
	09 9.5mm		40 4000K	15 XOB09 Output				
	14 15mm			50 XOB14 Output				

Example: XOB06903010S3622

XOB	06	90	30	10	S	36	2	2
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Opto-Electrical Performance – XOB Gen 2 S Series 95 CRI

Series	LES Size	Nominal CCT	CRI/R9		Current (mA)	Voltage (V)			Flux (lm)			Efficacy
			CRI	R9		Min	Typ	Max	Min	Typ	Max	Lm/W
XOB 3	3.3mm	2700	>95	>70	270	33.7	36.7	39.7	555	617	679	62
		3000							598	664	730	67
		3500							640	711	782	72
		4000							674	749	824	76
XOB 4	4.5mm	2700	>95	>70	180	31.7	34.7	37.7	443	492	541	79
		3000							494	549	604	88
		3500							519	576	634	92
		4000							545	605	666	97
XOB 6	6.1mm	2700	>95	>85	250	31.5	35.0	37.8	738	820	902	95
		3000		>80					797	885	974	102
		3500							830	925	1015	106
		4000							914	1015	1117	117
XOB 9	9.5mm	2700	>95	>85	350	30.1	33.4	36.1	1341	1490	1639	128
		3000		>80					1395	1550	1705	133
		3500							1458	1620	1782	139
		4000							1535	1705	1876	146
XOB 14	15mm	2700	>95	>85	1050	30.0	34.0	36.8	4127	4585	5044	129
		3000		>80					4298	4775	5253	134
		3500							4406	4895	5385	138
		4000							4608	5120	5632	144

Please Note:

1. Specifications and data are subject to change without notice.
2. Data shown in the tables are taken at a recommended operating test point (Tc) temperature of 70°C under pulsed conditions.
3. Normal operating range for test point (Tc) is -20°C to 90°C.
4. XOB-2 is designed for use with a constant current power supply with maximum output current.
5. Power consumption can be calculated from the data provided.
6. The tolerance of the measurement at our tester is: Vf ± 5%; Flux ± 7%, CRI ± 1.
7. Warranty coverage applies as long as the typical drive current and other operating conditions in this datasheet are met.
8. XOB03 and XOB04 performance data points are preliminary and subject to change

Opto-Electrical Performance – XOB Gen 2 S Series 90 CRI

Series	LES Size	Nominal CCT	CRI/R9		Current (mA)	Voltage (V)			Flux (lm)			Efficacy Lm/W
			CRI	R9		Min	Typ	Max	Min	Typ	Max	
XOB 4	4.5mm	2700	>90	>50	180	31.7	34.7	37.7	567	630	693	101
		3000							612	680	748	109
		3500							637	708	779	113
		4000							660	733	806	117
XOB 6	6.1mm	2700	>90	>50	250	31.5	35.0	37.8	885	985	1085	113
		3000							940	1045	1150	120
		3500							975	1085	1195	125
		4000							1000	1115	1230	128
XOB 9	9.5mm	2700	>90	>50	350	30.1	33.4	36.1	1500	1670	1840	143
		3000							1580	1755	1935	150
		3500							1615	1795	1975	153
		4000							1630	1815	2000	155
XOB 14	15mm	2700	>90	>50	1050	30.0	34.0	36.8	4585	5095	5605	142
		3000							4825	5365	5905	150
		3500							4885	5430	5975	152
		4000							4925	5475	6025	153

Please Note:

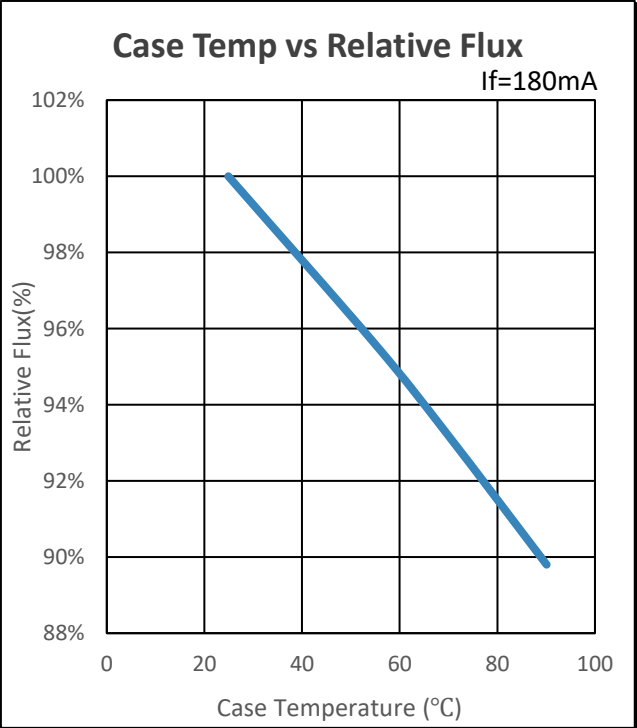
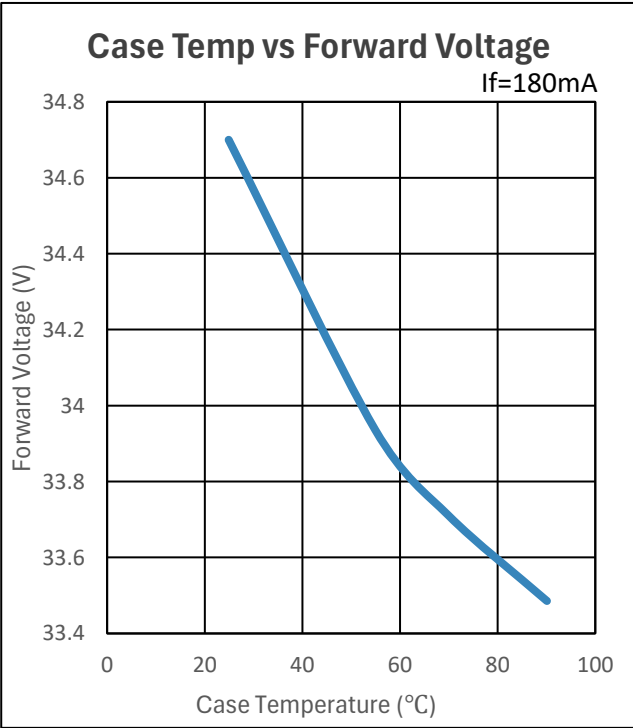
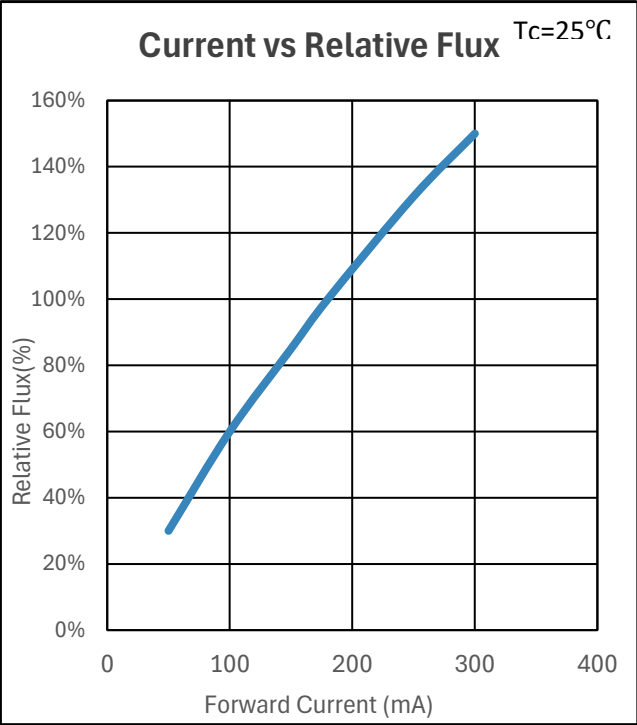
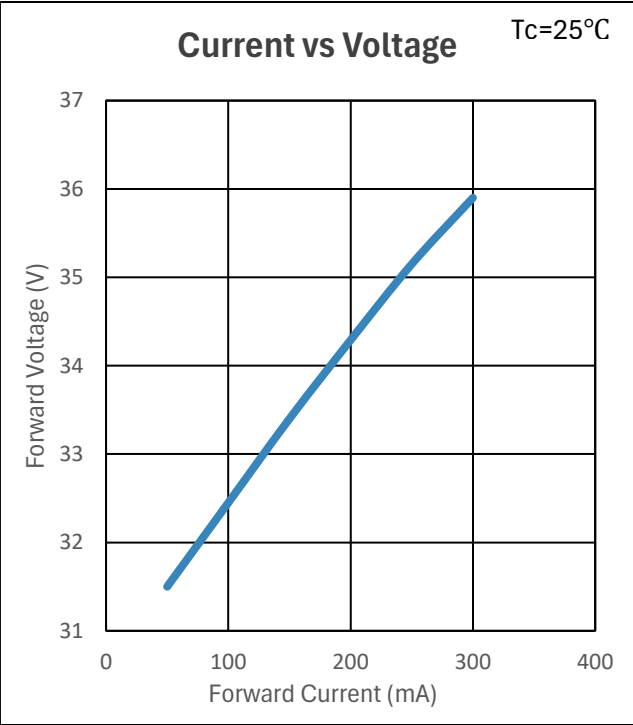
1. Specifications and data are subject to change without notice.
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3. Normal operating range for test point (Tc) is -20°C to 90°C.
4. XOB-2 is designed for use with a constant current power supply with maximum output current.
5. Power consumption can be calculated from the data provided.
6. The tolerance of the measurement at our tester is: Vf ± 5%; Flux ± 7%, CRI ± 1.
7. Warranty coverage applies as long as the typical drive current and other operating conditions in this datasheet are met.
8. XOB04 performance data points are preliminary and subject to change

Absolute Maximum Rating

Product Series	Forward Current (mA)	Tj to Tc Thermal Resistance [Rj-c] (°C/W)	Max Operating Temp @ Tc (°C)	Max Temp @ Tj (°C)	ESD [HBM] (V)
XOB03*	300	2.3	-40 to 105	150	2000
XOB04*	300	2.4	-40 to 105	150	2000
XOB06	300	1.2	-40 to 105	150	2000
XOB09	500	0.5	-40 to 105	150	2000
XOB14	1100	0.34	-40 to 105	150	2000

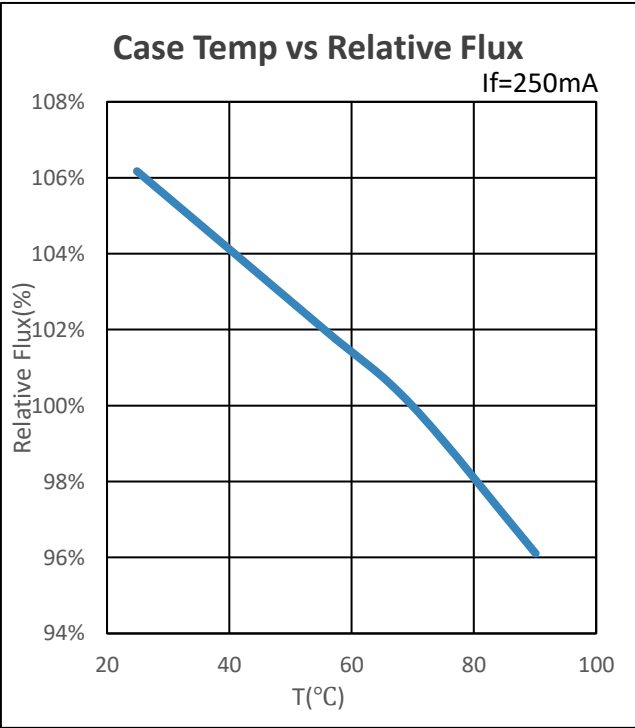
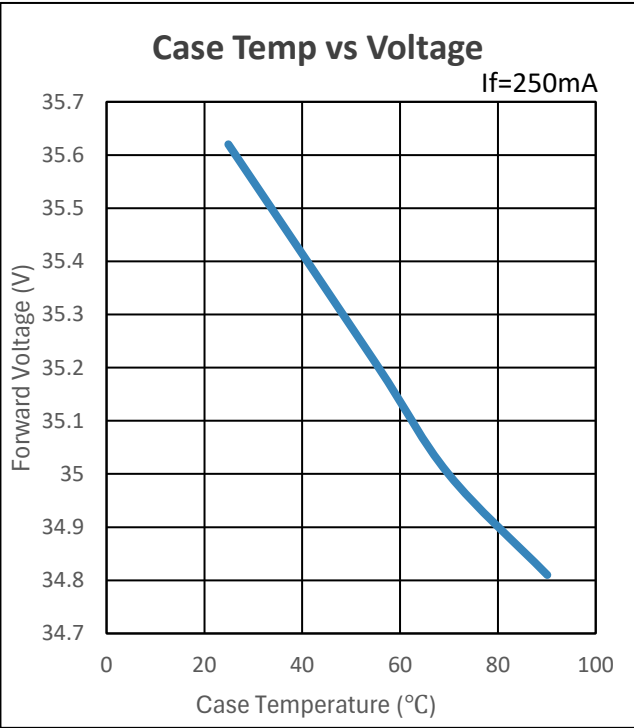
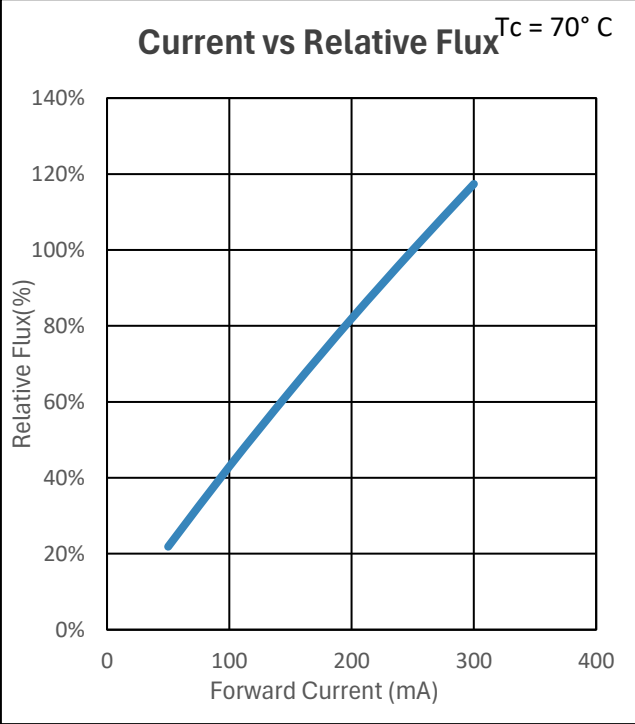
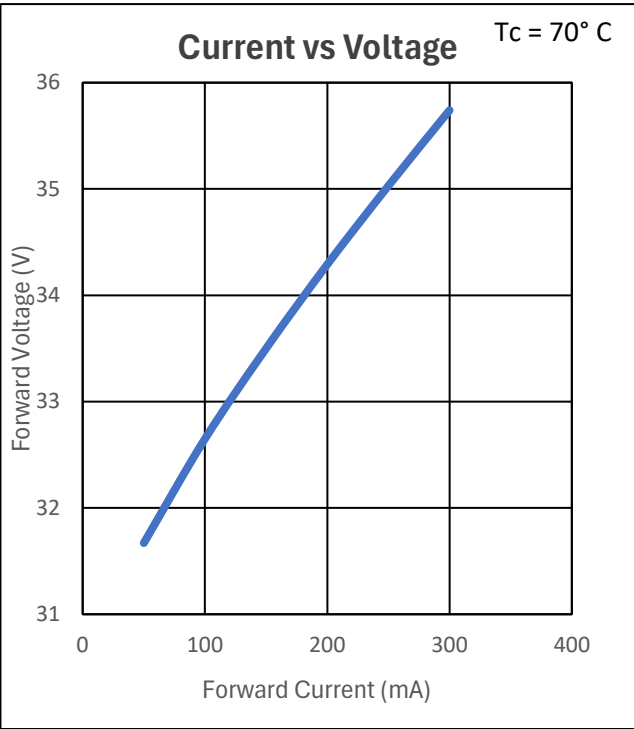
*XOB03 and XOB04 performance data points are preliminary and subject to change

Characteristics Curve – XOB04*

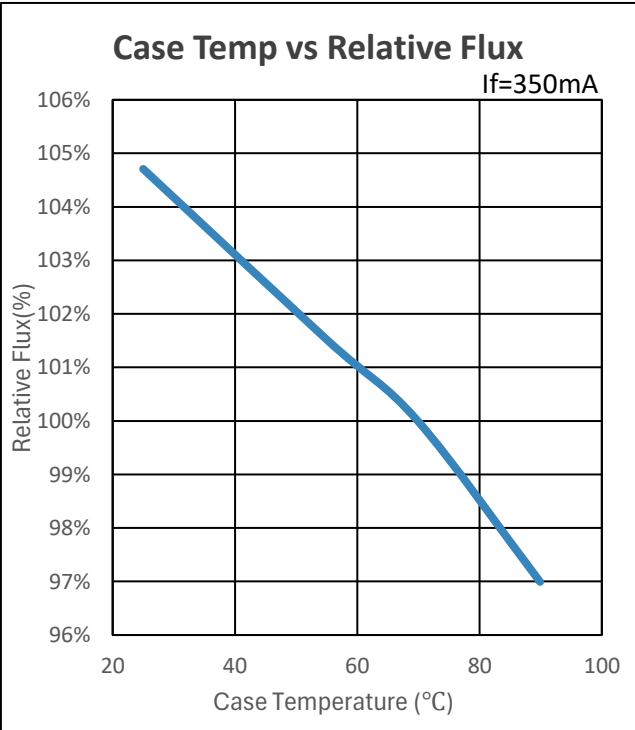
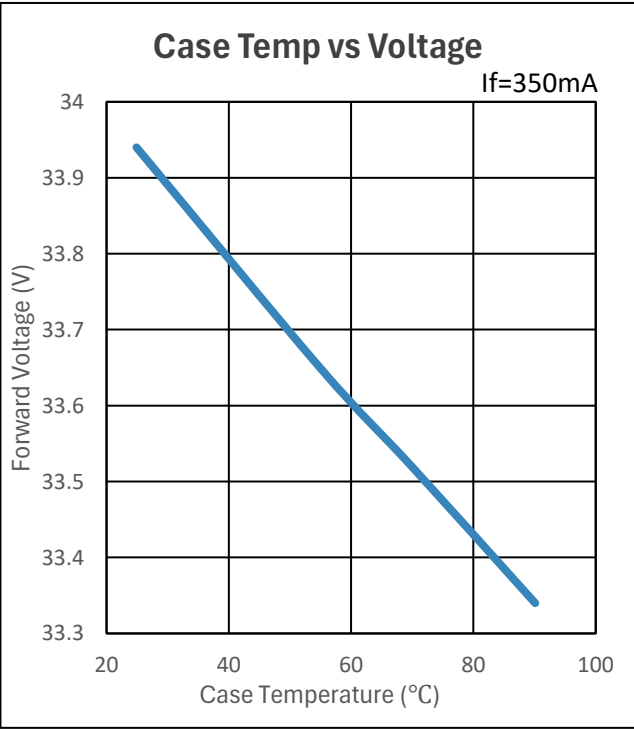
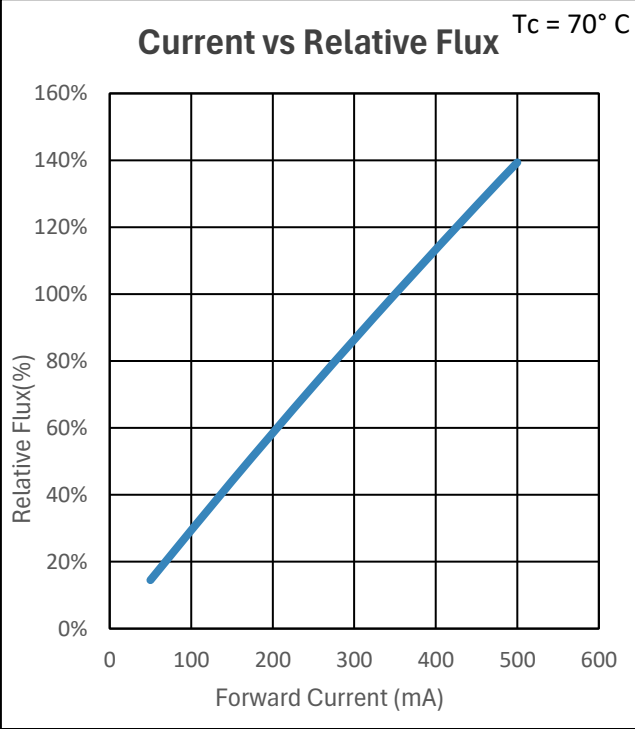
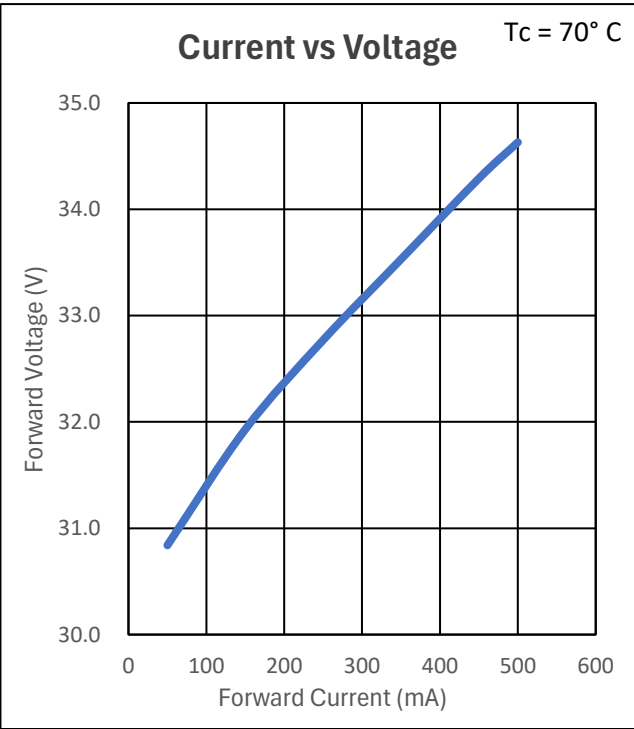


*XOB03 and XOB04 performance data points are preliminary and subject to change

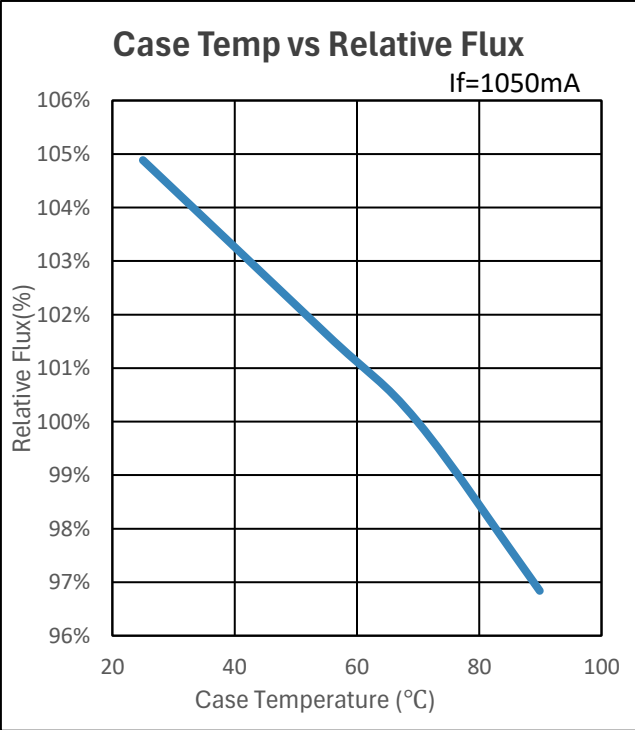
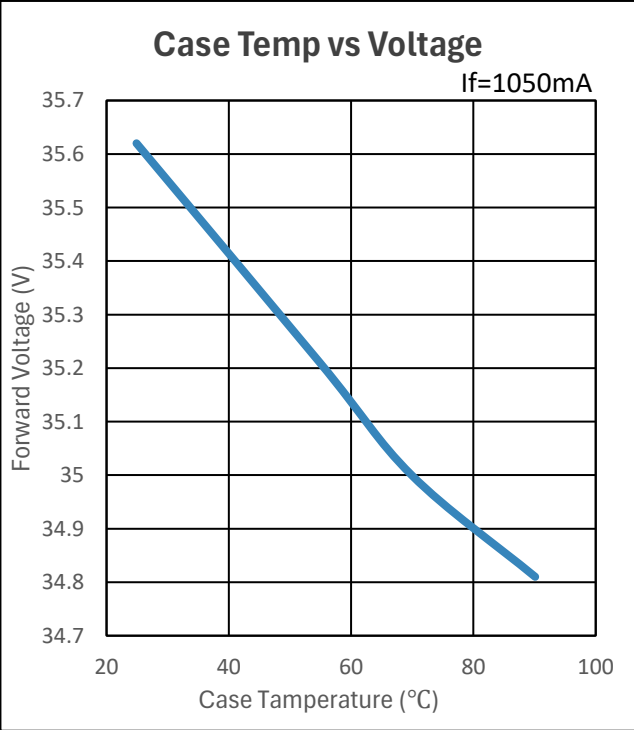
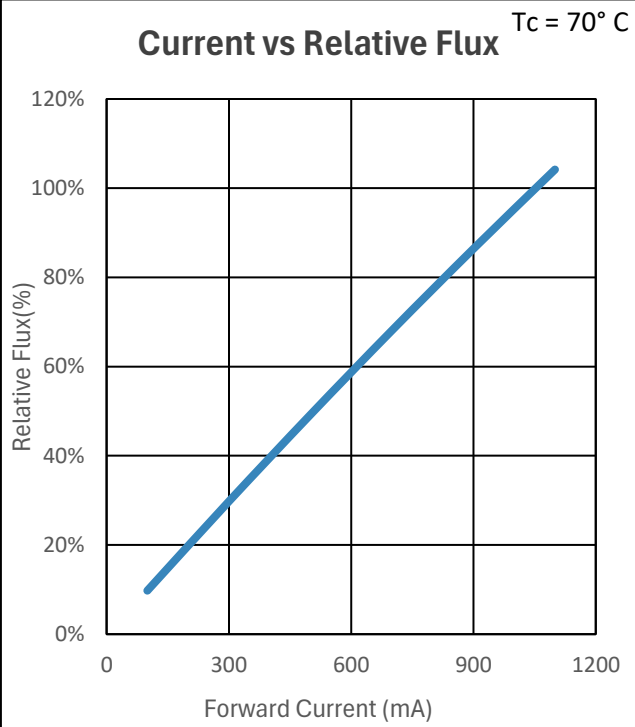
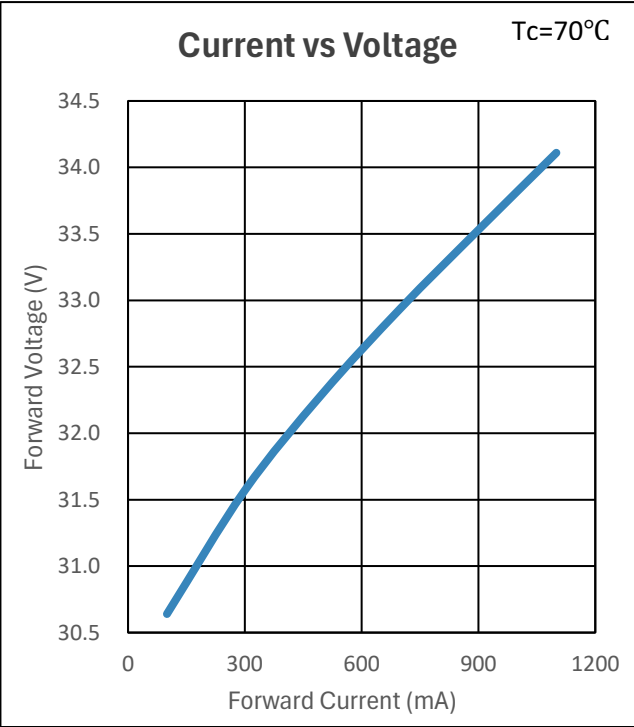
Characteristics Curve – XOB06



Characteristics Curve – XOB09

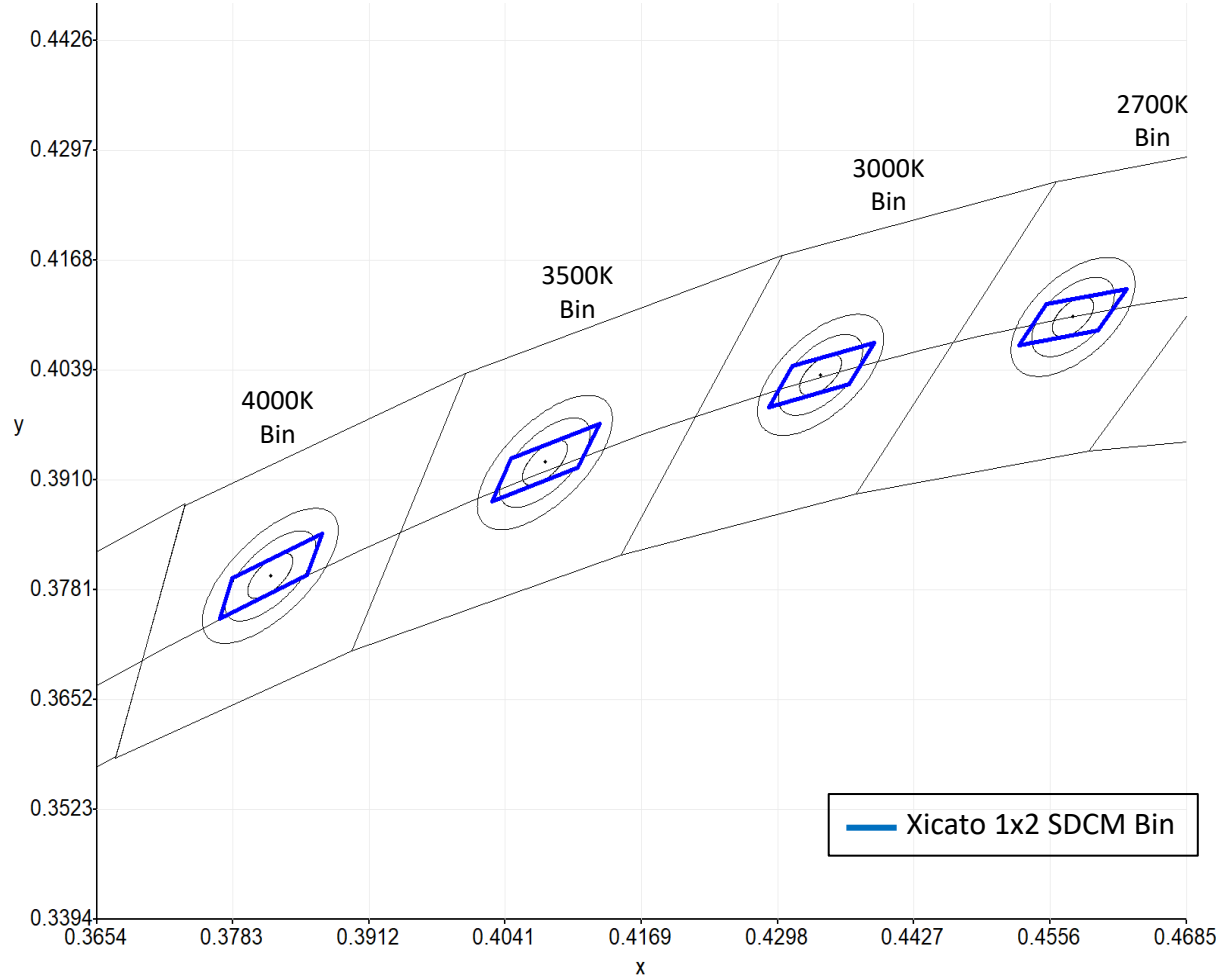


Characteristics Curve – XOB14



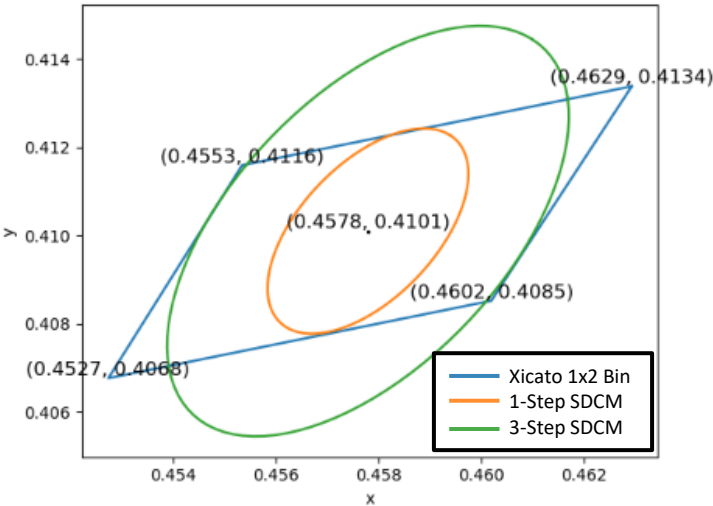
Chromaticity Performance

CIE 1931 X-Y Chart



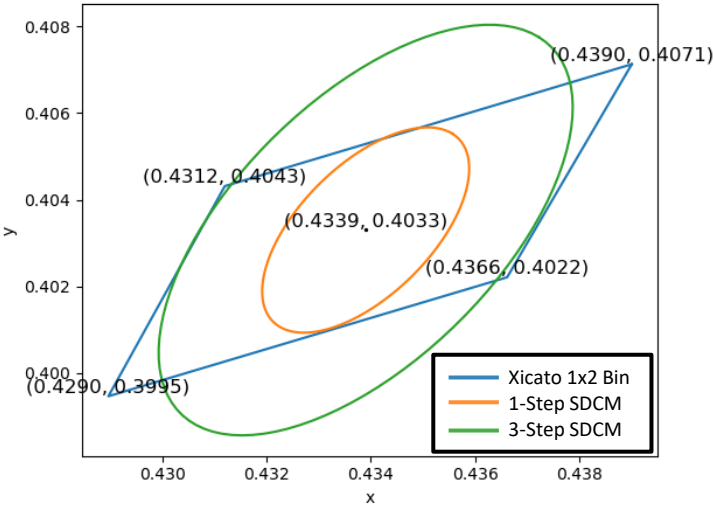
Chromaticity Performance

Xicato 1x2 SDCM Bin – 2700K



CCT	Point	Y	Y
2700K	Center	0.4578	0.4101
	1	0.4629	0.4134
	2	0.4553	0.4116
	3	0.4527	0.4068
	4	0.4602	0.4085

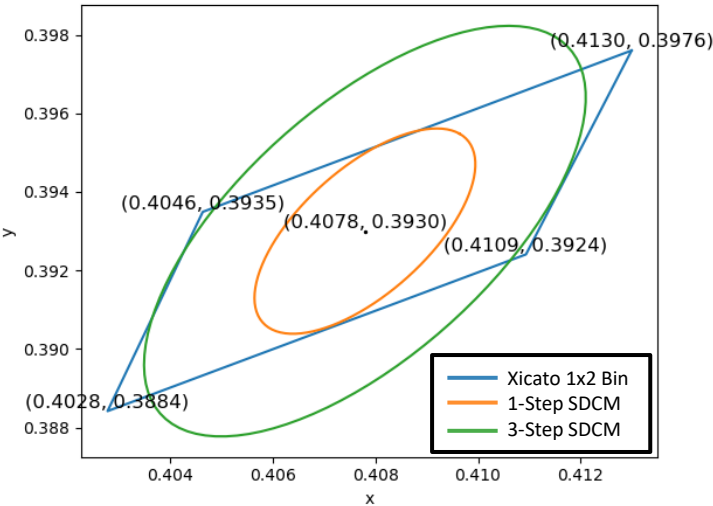
Xicato 1x2 SDCM Bin – 3000K



CCT	Point	Y	Y
3000K	Center	0.4339	0.4033
	1	0.439	0.4071
	2	0.4312	0.4043
	3	0.429	0.3995
	4	0.4366	0.4022

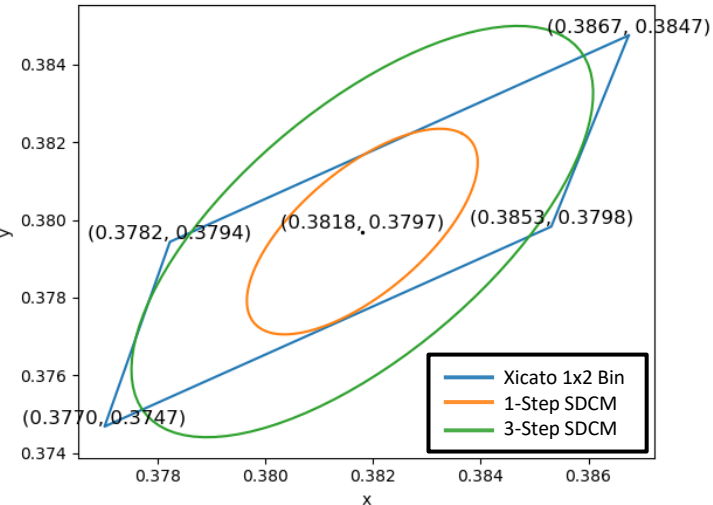
Chromaticity Performance

Xicato 1x2 SDCM Bin – 3500K



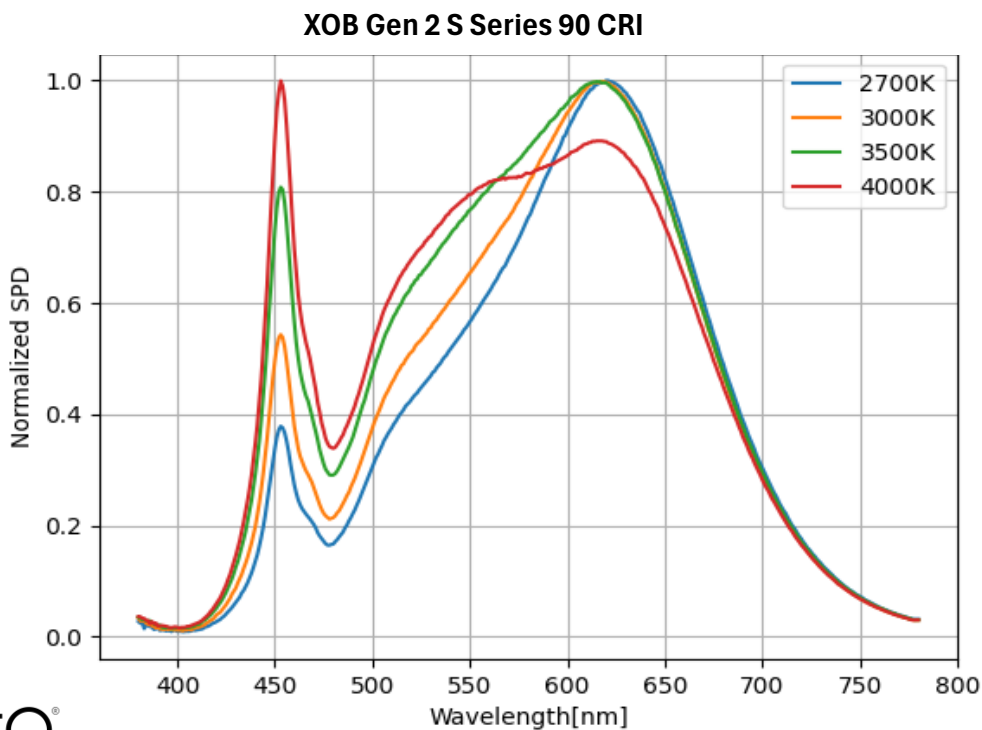
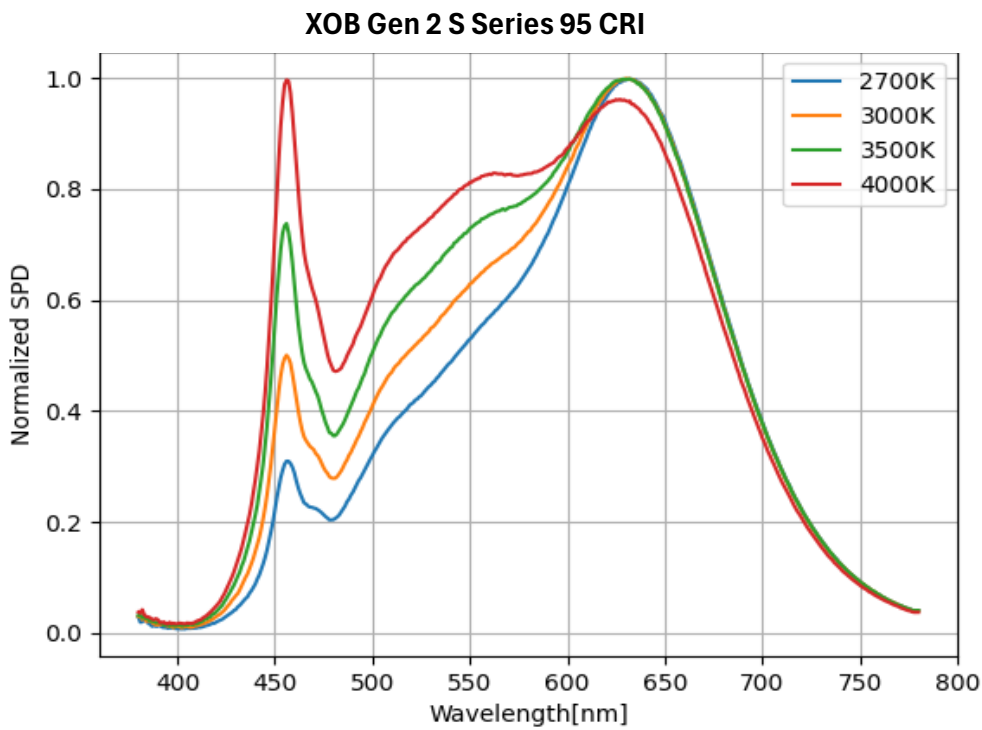
CCT	Point	Y	Y
3500K	Center	0.4078	0.393
	1	0.413	0.3976
	2	0.4046	0.3935
	3	0.4028	0.3884
	4	0.4109	0.3924

Xicato 1x2 SDCM Bin – 4000K



CCT	Point	Y	Y
4000K	Center	0.3818	0.3797
	1	0.3867	0.3847
	2	0.3782	0.3794
	3	0.377	0.3747
	4	0.3853	0.3798

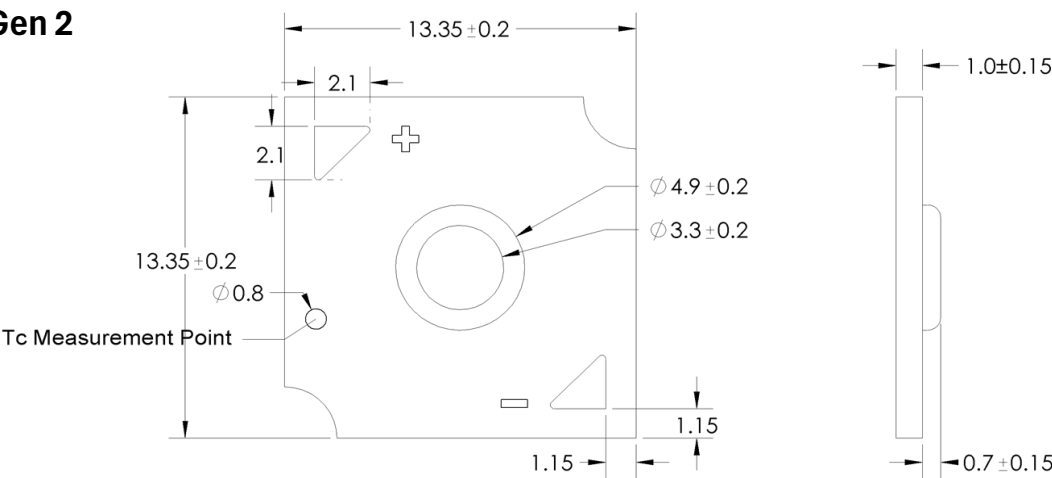
Typical Spectral Power Distribution (SPD)



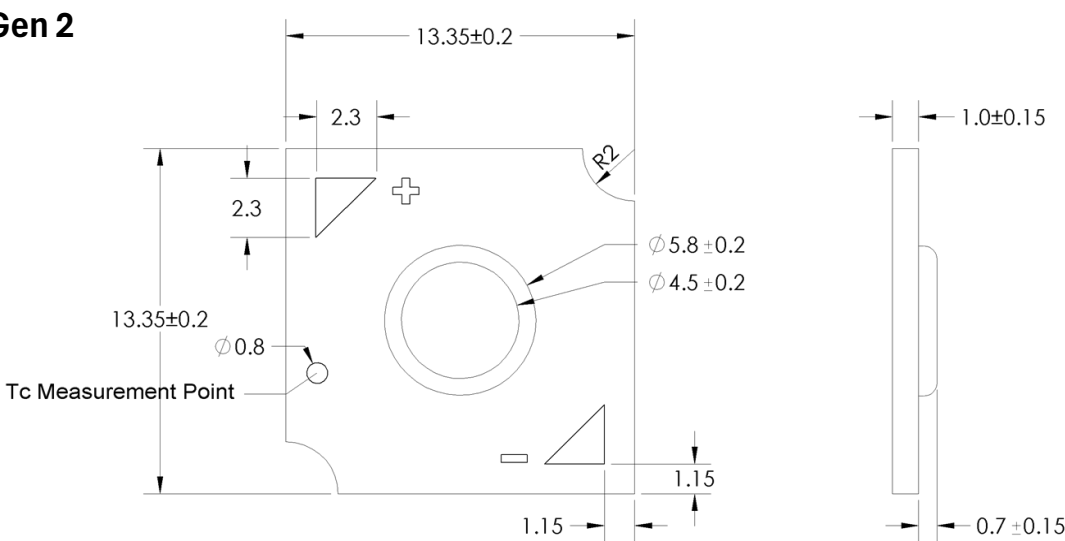
*Data shown are taken at a recommended operating test point (TC) temperature of 70°C under pulsed conditions.

(All measurements in mm)

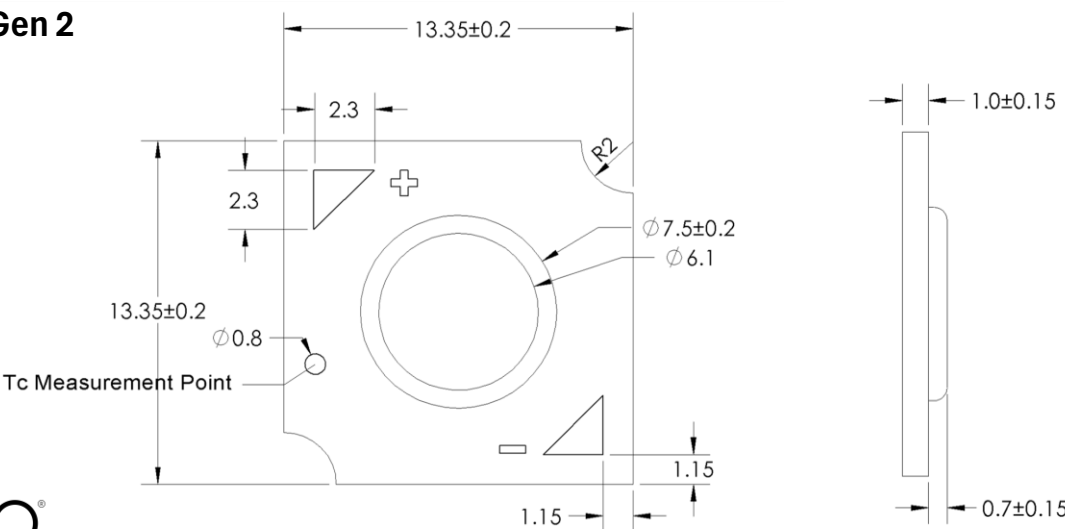
XOB03 Gen 2



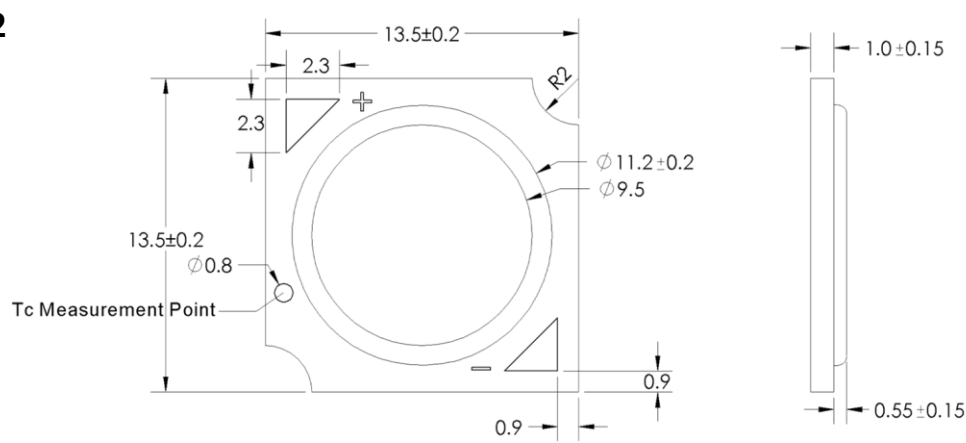
XOB04 Gen 2



XOB06 Gen 2



XOB09 Gen 2



XOB14 Gen 2

