MICROBeam Surface

1.4" Low-Profile Linear LED Surface Mount

XICO®

1.4"
Scale

Integral Driver

Features & Benefits

Exceptional Performance
Up to 1,000 lm/ft, 150 lm/W efficacy

Wide Range of LED Selections
Static, Tunable White, and Dim-to-Warm

Designed with Options
Wide choice of SmartOptic® lenses, beam distributions, 80/90/95+ CRI, 2200K to 5000K CCT, and 0-10V, DALI, DMX, and TRIAC dimming

Patented Innovations
Fusion® Optix Inside with unique SmartBeam® capabilities

Proprietary Optical Components
Provides excellent light distribution and high-transmission

Committed to Sustainability
Declare Listed and Red Free List materials

Compliance
UL Listed, Dry and Damp Locations

5-Year Warranty
Standard 5-year warranty, 50,000 hours

Designed & Built in
BOSTON

Declare

Red List Free

FIXTURE ORDERING

Project Name

Fixture Type

1) FIXTURE DESIGN

PRODUCT	LENGTH	FINISH	END CAP	OPTIC
MBE140-S				

1.4" Low-Profile
Linear LED
Surface Mount

2	2'	**MWH**	Matte White (RAL9003)	**E1**	Flat End Cap
4	4'	**MBK**	Matte Black (RAL9005)		
6	6'	**MGR**	Matte Gray (RAL7001)		
8	8'	**CAE**	Clear Anodized Effect		
10	10'	**RAL_**	Specify RAL#		
X_	Specify X', Y"				

OPTIC column:
OFL Flush Lens
ORL Regressed Lens
OCRL Continuous Regressed Lens[1]
OMBWH Micro Baffle, White (Requires Regressed Lens)
OMBBK Micro Baffle, Black (Requires Regressed Lens)

2) LED LIGHT ENGINE

CRI		CCT		DIRECT BEAM PATTERN		DIRECT OUTPUT	
S80	Std. 80 CRI	**22**	2200K	**DLAM**	Lambertian	**35**	350 lm/ft
S90	Std. 90 CRI	**27**	2700K	**DBW60**	Batwing 60°	**50**	500 lm/ft
HE80	High-Eff. 80 CRI	**30**	3000K	**DDA70**	Double Asymmetric 70°	**75**	750 lm/ft
HE90	High-Eff. 90 CRI	**35**	3500K	**DA3015**	Asymmetric 30° at 15° Tilt	**100**	1,000 lm/ft
HD95	High-Def. 95 CRI	**40**	4000K	**DA3010**	Asymmetric 30° at 10° Tilt	**X_**	Specify lm/ft
SUN	Full SunLike	**50**	5000K	**DM70**	Medium 70°		
SBIOS	Static BIOS	**3022D**	3000K to 2200K Dim-to-Warm	**DN40**	Narrow 40°		
DBIOS	Dynamic BIOS	**3527D**	3500K to 2700K Dim-to-Warm	**X_**	Specify Beam		
TBIOS	Tunable White BIOS	**X_**	Specify CCT				

3) FIXTURE POWER & CONTROLS

LINE VOLTAGE (DC)		INTEGRAL DRIVER (POWER)		EMERGENCY BACKUP		CONTROL SYSTEM[2]	
UNV	120/277V	**FDND**	Factory Non-Dimming	**NN**	Not Needed	**NN**	Not Needed
347	347V	**FD01**	Factory 0-10V 1% Dim	**EMC**	Emergency Circuit	**LUT**	Lutron
		FD10	Factory 0-10V 10% Dim	**EMB**	Emergency Battery (10 W — Onboard)	**COO**	Cooper
		FDDA	Factory DALI 0.1% Dim	**X_**	Specify Backup	**CAS**	Casambi
		FDDX	Factory DMX Dim			**X_**	Specify Control System
		FDTR	Factory TRIAC Dim				
		LD01	Lutron Hi-Lume 1% Dim				
		LD05	Lutron 5-Series 5% Dim				
		ED00	eldoLED 0-10V 0.1% Dim				
		ED01	eldoLED 0-10V 1% Dim				
		EDDA	eldoLED DALI 0.1% Dim				
		X_	Specify Driver				

4) FIXTURE MOUNTING & CONNECTIONS

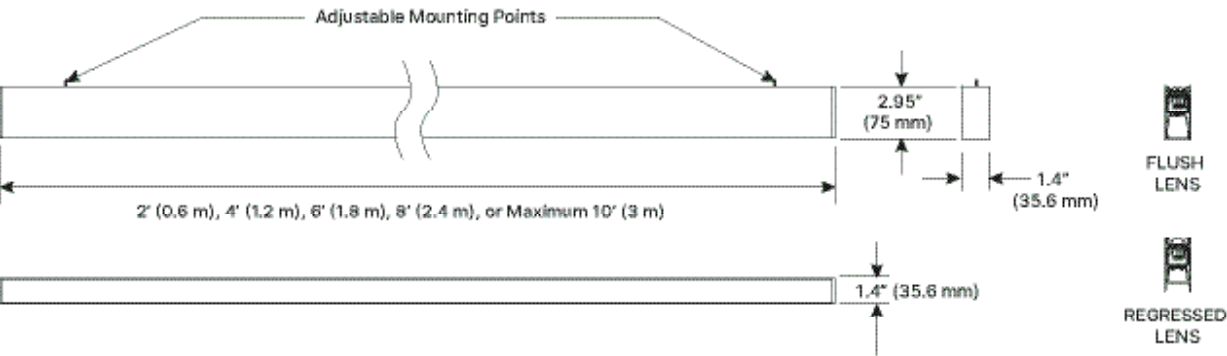| MOUNTING TYPE		POWER CORD		MOUNTING KIT	
DJ	Drywall/J-Box Mount	**S24WH**	24" White Cable Kit	**SSMB**	Stainless Steel Surface Mounting Bracket
T1	9/16" Flat T-Bar Mount	**S24BK**	24" Black Cable Kit		
T2	9/16" Bolt Slot T-Bar Mount				
T3	15/16" Flat T-Bar Mount				

NOTES

Footnotes: [1] Continuous Regressed Lens ships on a roll for seamless lens installation.   [2] The control system and driver must be compatible.

FIXTURE DESIGN

Dimensions

Adjustable Mounting Points

2.95" (75 mm)

1.4" (35.6 mm)

FLUSH LENS

2' (0.6 m), 4' (1.2 m), 6' (1.8 m), 8' (2.4 m), or Maximum 10' (3 m)

1.4" (35.6 mm)

REGRESSED LENS

Length

Length Options   2', 4', 6', 8', 10' nominal, or custom within 3"

Finish

Housing Colors (Matte Finish)

White (RAL9003)   Black (RAL9005)   Gray (RAL7001)   Clear Anodized Effect   Custom RAL

Housing Material   6063-T5 extruded, recycled aluminum

Mounting Brackets   Sheet metal

End Cap

End Cap Option   Flat

End Cap Material   Machined or cast aluminum

Optic

Lens Options   Flush, Regressed, Continuous Regressed, and Micro Baffle (Requires Regressed Lens)

Lens Material   Patented SmartOptics® made from Acrylic (PMMA)
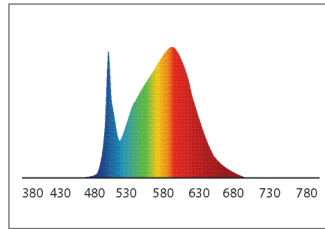
Voltage

Fixture Voltage (AC)   120–277 VAC and 347 VAC, 50/60 Hz
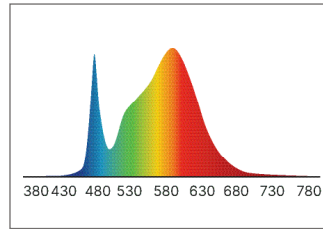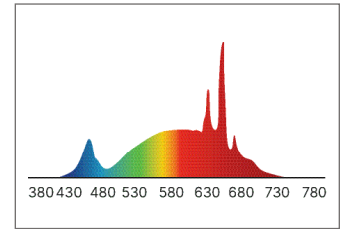
LED SELECTION GUIDE

S80: Standard 80+ CRI
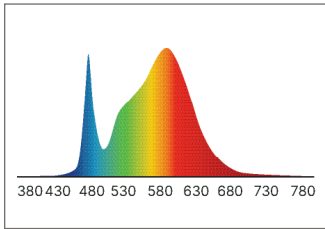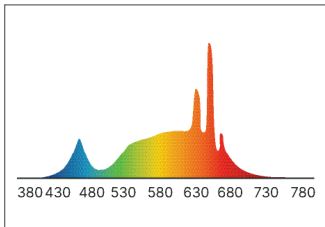

S90: Standard 90+ CRI

HE80: High-Efficiency 80+ CRI
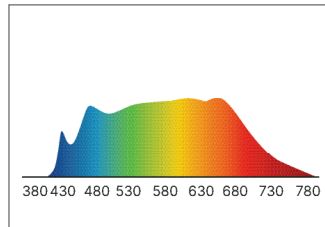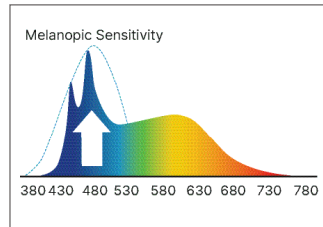

HE90: High-Efficiency 90+ CRI
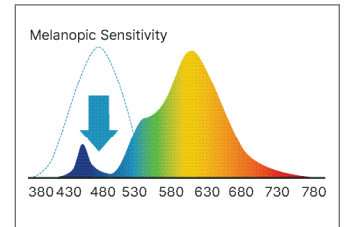

HD95: High-Definition 95+ CRI

SUN: Full Spectrum "SunLike"

HCD: Human Centric Day

HCN: Human Centric Night

Static White Light (LED Light Engine Only)

CODE	DESCRIPTION	TYPICAL LED DATA							
		CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	M/P Ratio	LPW
S80	Standard 80 CRI	3500K	82.5	7.8	84	96.7	82.5	0.51	190
S90	Standard 90 CRI	3500K	91	54.3	89.3	98.9	89.2	0.55	175
HE80	High Efficiency 80 CRI	3500K	82.1	5.9	83	94.2	81.2	0.52	210
HE90	High Efficiency 90 CRI	3500K	92.2	90	90.7	103.8	92.1	0.56	190
HD95	High Definition 95 CRI	3500K	97.1	95	–	–	–	0.70	163
SUN	Full Spectrum SunLike®	3500K	95	85	–	–	–	–	130
HCD	Human Centric Day	4000K	83	95	–	–	–	0.92	155
HCN	Human Centric Night	2700K	80	–	–	–	–	0.44	134

LPW Efficacy Conversion Chart

CODE	CCT SELECTED							
	2200K	2700K	3000K	3500K	4000K	5000K	5700K	6500K
S80	–	0.91	0.96	1.00	1.04	1.11	1.11	1.11
S90	–	0.91	0.96	1.00	1.04	1.11	1.11	1.11
HE80	–	0.96	0.99	1.00	1.03	1.04	1.03	1.03
HE90	–	0.91	0.96	1.00	1.04	1.11	N/A	N/A
HD95	–	0.91	0.96	1.00	1.04	1.11	1.03	1.04
SUN95	–	0.90	0.92	1.00	1.01	1.07	1.04	1.05
HCD	–	N/A	0.96	1.00	1.04	1.04	1.04	1.04
HCN	–	0.87	0.96	1.00	1.04	N/A	N/A	N/A

BIOS TECHNOLOGY

Choosing Your BIOS Solution

bios

To learn more about BIOS Technology, please click or scan the QR Code.

BIOS is offered in four Circadian LED Solutions with BIOS SkyBlue Technology — Biological Static, Biological Dynamic, Biological Tunable, and Biological Dim-to-Warm. BIOS SkyBlue™ Technology includes a blue peak at 490nm that provides an effective daytime circadian signal using standard architectural color temperatures.
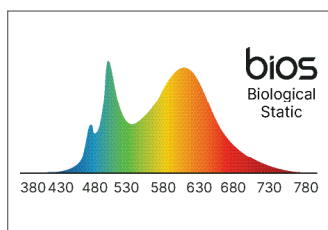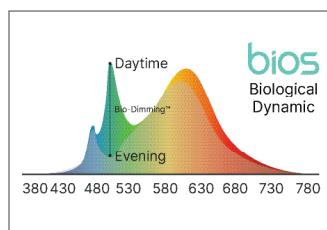
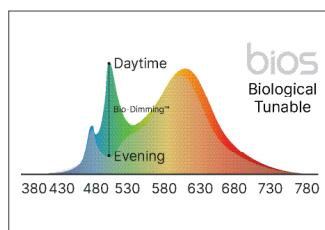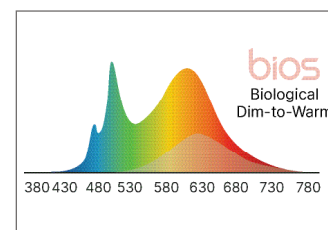|			
BIOS Static	**BIOS Dynamic**	**BIOS Tunable**	**BIOS Dim-to-Warm**

Daytime
No color change when dimmed

Spaces that operate during daytime hours — 7am and 7pm

Daytime & Evening
500K shift when dimmed

Spaces that operate overnight — after 7pm and before 7am

Daytime & Evening
Dims to 2700K

Spaces that operate with overnight shifts — after 7pm and before 7am

Daytime & Evening
Dims from cool to warm

Spaces where people sleep — after 7pm and before 7am

Circadian and Human Centric Light

		BIO-DIMMING MODULE TECHNOLOGY GUIDE					
CODE	**DESCRIPTION**	**Driver**	**Driver Voltage**	**CCT**	**Requires BIO-Dimming Module**	**Lighting Control**	**BIOS SkyBlue (490nm)**
SBIOS	BIOS Static	DIM1	0-10V Dimming to 1% Dim-to-Dark	No CCT Change	No	Intensity Dimming Control Only	Always Present
DBIOS	BIOS Dynamic	BIODIM1	0-10V Intensity Dimming to 1% Dim-to-Dark	500K Shift	Yes	Intensity Dimming & Spectrum Change Controlled Together	Removed with BIO-Dimming
DBIOS-2	BIOS Dynamic (Two Channel)				No	Intensity Dimming & Spectrum Change Controlled Separately	Removed by Adjusting "Spectrum Channel"
TBIOS	BIOS Tunable	ATW / DTW	0-10V Control of Intensity & CCT on Separate 2 Channels / DALI Control of Intensity & CCT on Separate 2 Channels	Dims to 2700K	Yes	Intensity Dimming & Spectrum Change Controlled Together	Removed with BIO-Dimming
TBIOS-2	BIOS Tunable (Two Channel)				No	Intensity Dimming & Spectrum Change Controlled Separately	Removed by Adjusting "Spectrum Channel"
DWBIOS	BIOS Dim-to-Warm	–	–	Dims to 2200K	Yes	Intensity Dimming & Spectrum Change Controlled Together	Removed with BIO-Dimming
DWBIOS-2	BIOS Dim-to-Warm (Two Channel)				No	Intensity Dimming & Spectrum Change Controlled Separately	Removed by Adjusting "Spectrum Channel"

SMARTBEAM® TECHNOLOGY

The Ultimate Control of Lighting Distributions

SmartBeam makes it easy to specify the exact light required for any architectural space. Available in every XICO product; it is now possible to create truly tailored and engaging lighting that transform spaces, improves visual comfort, and saves energy.

To learn more about our SmartBeam Technology, please click or scan the QR Code.

FIXTURE POWER & CONTROLS

Voltage

LED Driver	Factory Selected, 36–39V Constant Current

Emergency Backup

Backup Types	Emergency Circuit, Emergency Battery (Onboard), and other emergency backups are available
Wiring	Typically the Emergency Backup is wired to 48" sections
Power	10 W
Illumination Time	90 minutes

Partners

LUTRON.   COOPER   CASAMBI   eldoLED
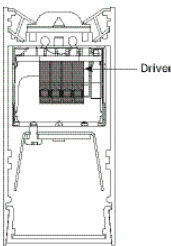
| Control Systems	Integral Drivers
Other	Factory Non-Dimming, Factory 0-10V 1% Dim, Factory 0-10V 10% Dim, Factory DALI 0.1% Dim, Factory DMX Dim, Factory TRIAC Dim, eldoLED 0-10V 0.1% Dim, eldoLED 0-10V 1% Dim, eldoLED DALI 0.1% Dim, and other drivers are available, consult factory (not all integral)
Lutron	Hi-Lume 1% Dimming and 5-Series 5% Dimming
Cooper	Compatible driver
Casambi (wireless)	Compatible driver

Drivers are integral to the fixture and are included. They provide 0-10V, DALI, DMX, and TRIAC dimming. Also compatible with Cooper and other common building control systems, including PoE and wireless.
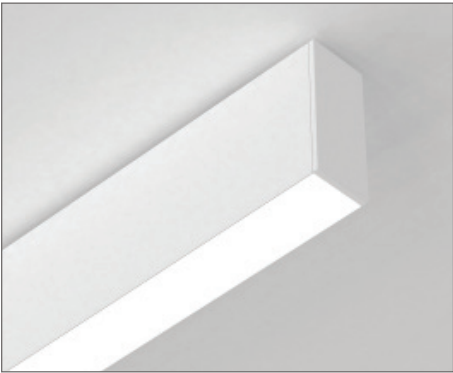
Flush Lens
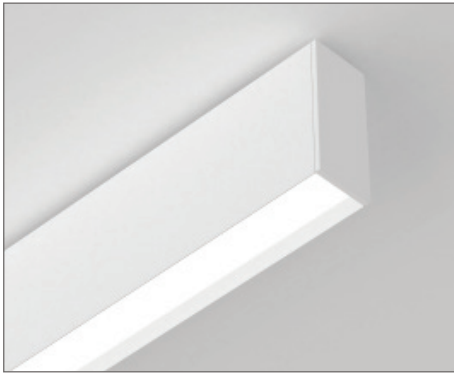
Regressed Lens
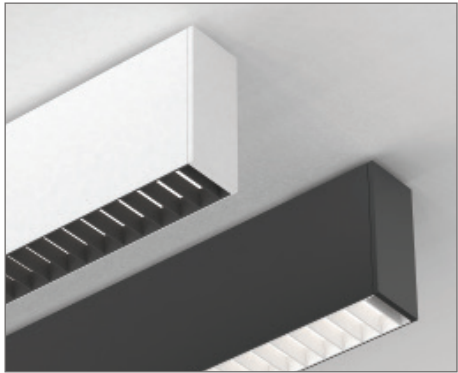
Micro Baffles

FIXTURE MOUNTING & CONNECTIONS

Mounting Type

T-Bar Mount   Installs into a ceiling grid system and mount on to, or replace, typical T-Bar elements. Available with a range of accessories, mounts and inserts that provide easy customization of visual appearance and performance enhancements.

Drywall/J-Box Mount   Installs onto a surface via a junction box. Available with a range of accessories, mounts and inserts that provide easy customization of visual appearance and performance enhancements.

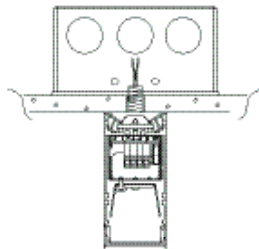## Power Cords

24" Cable Kit   White and Black

Mounting Kit

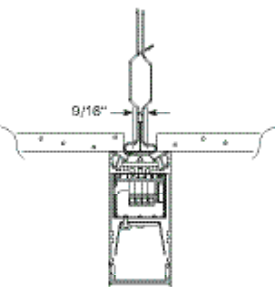**Surface Mounting Bracket**   Stainless Steel
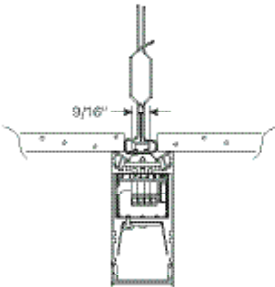
Mounting Options

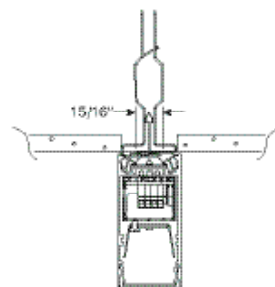
DJ - Drywall/J-Box Mount   T1 - 9/16" Flat T-Bar Mount   T2 - 9/16" Bolt Slot T-Bar Mount   T3 - 15/16" Flat T-Bar Mount

Standard Lengths & Continuous Runs

Maximum length of one fixture is 10'. Longer runs can be produced by joining sections. Customer approval of shop drawings is required prior to build of any non-standard length order.

Lens can be supplied in a maximum 250' roll length with Continuous FlatLENS Optics to be installed on-site for a seamless light surface.
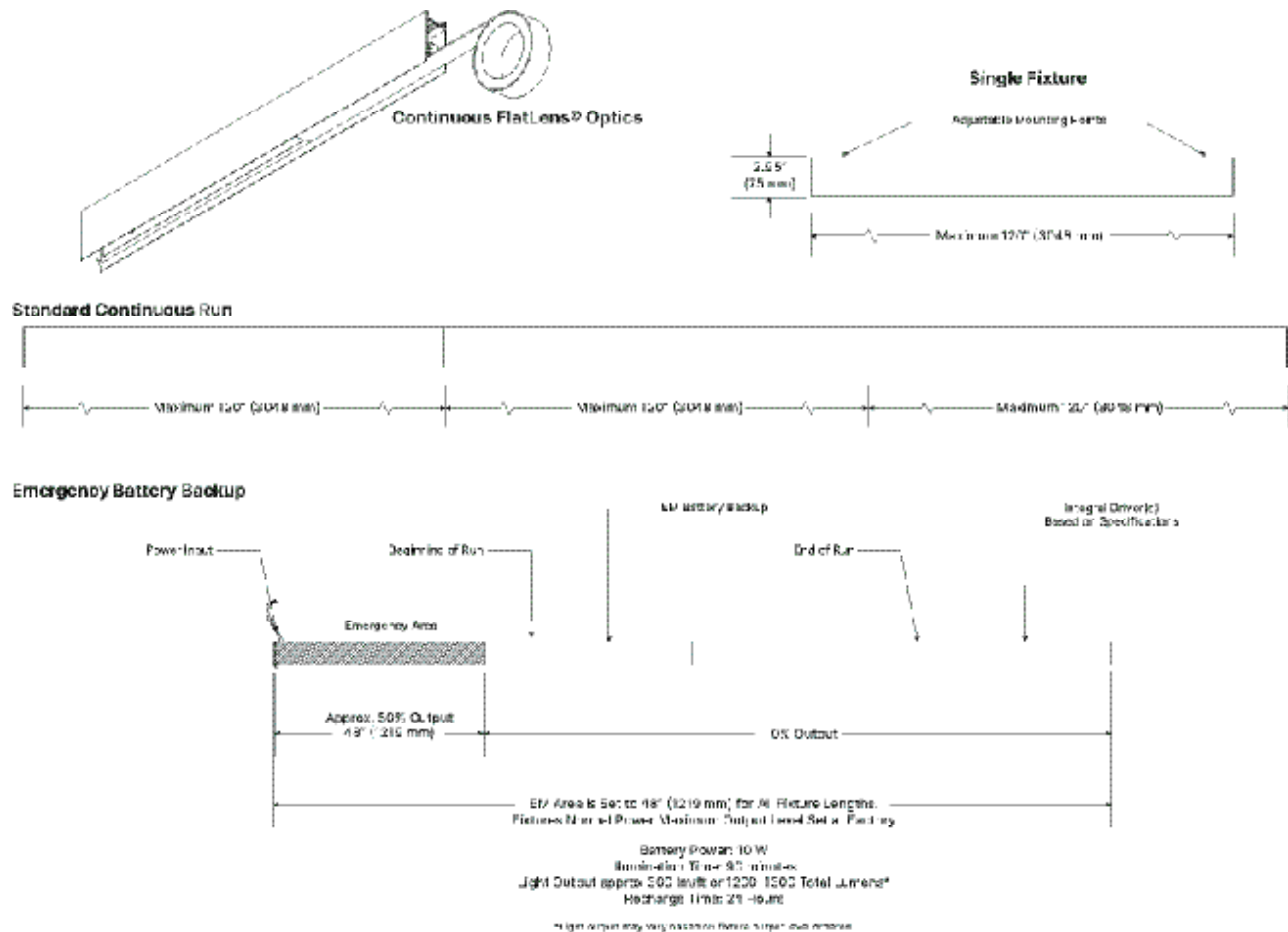
STANDARDS & CERTIFICATIONS
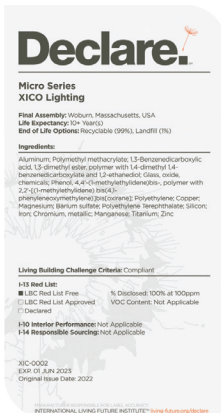
Declare Listed

Declare labels provide a quick and reliable way to make choices about the environmental footprint and safety of the product. Declare is internationally recognized and the labels can be found on the product, product packaging, or company website. Visit **xicoled.com** for Declare Listed details.

Red List Free

An industry standard certification for LED lighting products based on the International Living Future Institute (ILFI). These products only use materials based on the "Red List of Toxic Chemicals" (a list of chemicals and materials known to be hazardous to people and/or the Earth) that are safe, healthy, and environmentally sustainable.

Certifications

Compliance	BAA & TAA compliant in-house manufacturing in Boston, MA with North American supply chain
Certifications	UL LISTED CSA RoHS 2002/93/EC IC RATED
Sustainability	Declare Listed and Red List Free
Packaging	Low carbon, environmentally conscious packaging and shipping methods

Environmental Suitability

IP Rating	Suitable for Dry and Damp Locations, indoor use only
Recyclable	SmartOptics and all powder coated and anodized parts are fully recyclable at end of life

Reliability

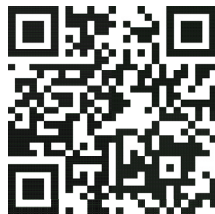|	
Manufacturing	All XICO products and associated optics and LED engines are assembled at our factory in Woburn, MA
Quality Assurance	Each product is engineered reliability and quality assurance tested

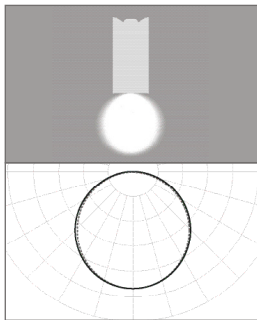### Warranty & Terms

5-YR Warranty

Business Terms

For details on our warranty and business terms, please click or scan the QR Code.

OPTIC	BEAM PATTERN						
	DLAM	**DBW60**	**DDA70**	**DA3015**	**DA3010**	**DM55**	**DN40**
Flush Lens	●	●	●	●	●	●	●
Regressed Lens	●	●	●	●	●	●	●
Micro Baffle	●	●	●	●	●	●	●

DIRECT PHOTOMETRICS

Static White Light

DLAM: Lambertian

Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	745
Watts	22.5
W/ft	5.6
LPW	133

DBW60: Batwing 60°
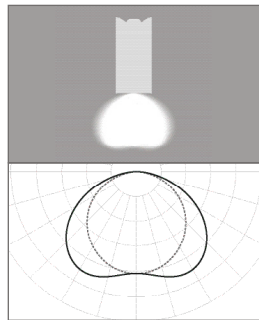
Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	758
Watts	21
W/ft	5.4
LPW	141

DDA70: Double Asymmetric 70°
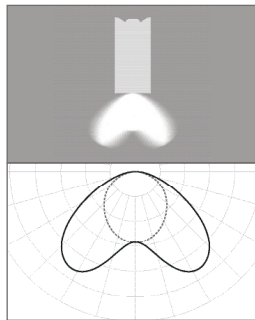
Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	750
Watts	25
W/ft	6.2
LPW	123

DA3015: Asymmetric 30° at 15° Tilt
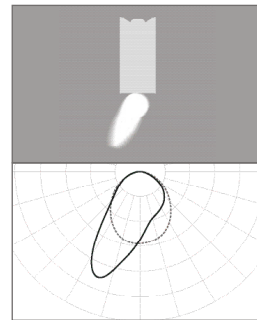
Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	757
Watts	23
W/ft	5.8
LPW	131

DA3010: Asymmetric 30° at 10° Tilt
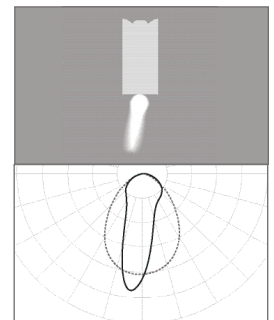
Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	754
Watts	23
W/ft	5.8
LPW	130

DM70: Medium 70°
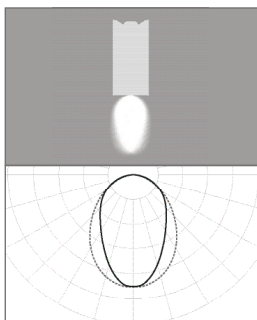
Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	752
Watts	20
W/ft	5
LPW	149

DN40: Narrow 40°
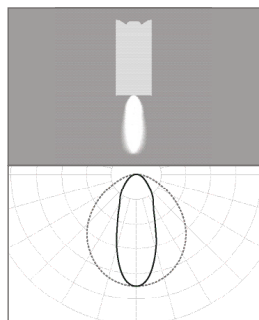
Length	48"
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	754
Watts	20
W/ft	5
LPW	151

PATENTS & TRADEMARKS
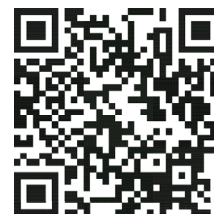
To learn more about our
unique technologies,
please click or scan
the QR Code.

Utility Patents

United States	US11543582, US11520097, US11512466, US11441749, US11396751, US11333822, US11163104, US11156762, US10852466, US10068447, US8953926, US8948564, US8911099, US8876348, US8794812, US8783898, US8761565, US8750671, US8721152, US8619363, US8430548, US8408775, US8249408, US8231256, US8177408, US8033706, US8033674, US7991257, US7914192, US7784954, US7758227, US7722224, US7542635, US7453636, US7453635, US7431489, US7408707, US7278775, US6369944, US6346311, US6123877, US5932342, US5837346, US20220373144, US20220372752, US20220364708, US20220357006, US20220357005, US20220342141, US20220290432, US20220206210A1, US20220171119A1, US20220171115A1, US20220162856A1, US20220162853A1, US20220146063A1, US20220137287, US20210301991A1, US20200355345A1, US20200217071A1, US20220333765A1, US20220228366A1, US20220196906A1, US20220010554A1, US20080043490A1, US20060290253A1, US20060215958A1, US20120321247, US20120250330, US20120099204
Canada	CA2702600, CA2702685, CA2702690
France	FREP0800658
Germany	DEEP0800658
Great Britain	GB2492541, GB2492542, GBEP0800658, GB2492398
Japan	JP03958359
Netherlands	NLEP0800658
Taiwan	FTW360813B
European Patent Organization	EP0843203, EP0843203

Design Patents

United States	USD719282, USD717973, USD669606, USD669608, USD669609, USD669614, USD663056

The Patent Corporation Treaty

World Intellectual Property Organization	WO2015200268

Trademarks

United States	US6672871, US6397231, US6373493, US6257728, US6190558, US6190559, US6142905, US6114408, US6038234, US6025279, US6060740, US6257729, US5856164, US5734112, US5543304, US5309290, US5309315, US4691124, US4640751

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