NANOSquare NCO Surface

0.95" Compact Linear LED Surface Mount

XICO®

0.95"
⊢⊣
Scale

Remote Driver

Features & Benefits

Exceptional Performance
Up to 1,000 lm/ft, 135 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		FIXTURE FINISH		END CAP		NANO CAVITY OPTICS (NCO) FINISH	
NSQ95NCO-S								
0.95" Compact Linear LED Surface Mount	**2** **4** **6** **8** **10** **X_**	2' 4' 6' 8' 10' Specify X', Y"	**MWH** **MBK** **MGR** **CAE** **RAL_**	Matte White (RAL9003) Matte Black (RAL9005) Matte Gray (RAL7001) Clear Anodized Effect Specify RAL#	**E1**	Flat End Cap	**OSQNCOWH** **OSQNCOBK** **ORNCOWH** **ORNCOBK**	Square NCO, White Square NCO, Black Round NCO, White Round NCO, Black

2) LED LIGHT ENGINE

CRI		CCT			DIRECT BEAM PATTERN		DIRECT OUTPUT	
S80	Std. 80 CRI	**22**	2200K		**DNCO45**	Nano Cavity Optics 45°	**35**	350 lm/ft
S90	Std. 90 CRI	**27**	2700K		**DNCO35**	Nano Cavity Optics 35°	**50**	500 lm/ft
HE80	High-Eff. 80 CRI	**30**	3000K		**DNCO25**	Nano Cavity Optics 25°	**75**	750 lm/ft
HE90	High-Eff. 90 CRI	**35**	3500K		**X_**	Specify Beam	**100**	1,000 lm/ft
HD95	High-Def. 95 CRI	**40**	4000K				**X_**	Specify lm/ft
SUN	Full SunLike	**50**	5000K					
SBIOS	Static BIOS	**3022D**	3000K to 2200K Dim-to-Warm					
DBIOS	Dynamic BIOS	**3527D**	3500K to 2700K Dim-to-Warm					
TBIOS	Tunable White BIOS	**X_**	Specify CCT					

3) FIXTURE POWER & CONTROLS

LINE VOLTAGE (DC)		REMOTE DRIVER (POWER)		EMERGENCY BACKUP		REMOTE DRIVER BOX[1]		CONTROL SYSTEM[3]	
UNV	120/277V	**FDND**	Factory Non-Dimming	**NN**	Not Needed	**NN**	Not Needed	**NN**	Not Needed
347	347V	**FD01**	Factory 0-10V 1% Dim	**EMC**	Emergency Circuit	**RLDB**[2]	Remote Linear Driver Box	**LUT**	Lutron
		FD10	Factory 0-10V 10% Dim	**EMB**	Emergency Battery		(driver included by default)	**COO**	Cooper
		FDDA	Factory DALI 0.1% Dim		(10 W — Remote)	**RX2D**[2]	Optional Remote XBox2	**CAS**	Casambi
		FDDX	Factory DMX Dim	**X_**	Specify Backup		Driver, Up to 2 Drivers	**X_**	Specify Control
		FDTR	Factory TRIAC Dim			**RX3D**[2]	Optional Remote XBox3		System
		LD01	Lutron Hi-Lume 1% Dim				Driver, Up to 3 Drivers		
		LD05	Lutron 5-Series 5% Dim			**RX5D**[2]	Optional Remote XBox5		
		ED00	eldoLED 0-10V 0.1% Dim				Driver, Up to 5 Drivers		
		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	
SMC	Surface Mount Clip	**P48WH**	48" White Cord (Ø 1/8")	**SSMB**	Stainless Steel Surface Mounting Bracket
SMM	Surface Mount Magnet	**P48BK**	48" Black Cord (Ø 1/8")		
TC1	9/16" Flat T-Bar Mount Clip	**P96WH**	96" White Cord (Ø 1/8")		
TC2	9/16" Bolt Slot T-Bar Mount Clip	**P96BK**	96" Black Cord (Ø 1/8")		
TC3	15/16" Flat T-Bar Mount Clip				

Footnotes: [1] Remote distance is dependent on driver type, up to 100' (30.5 m).   [2] Creates a clean and organized power solution for multiple fixture installations.
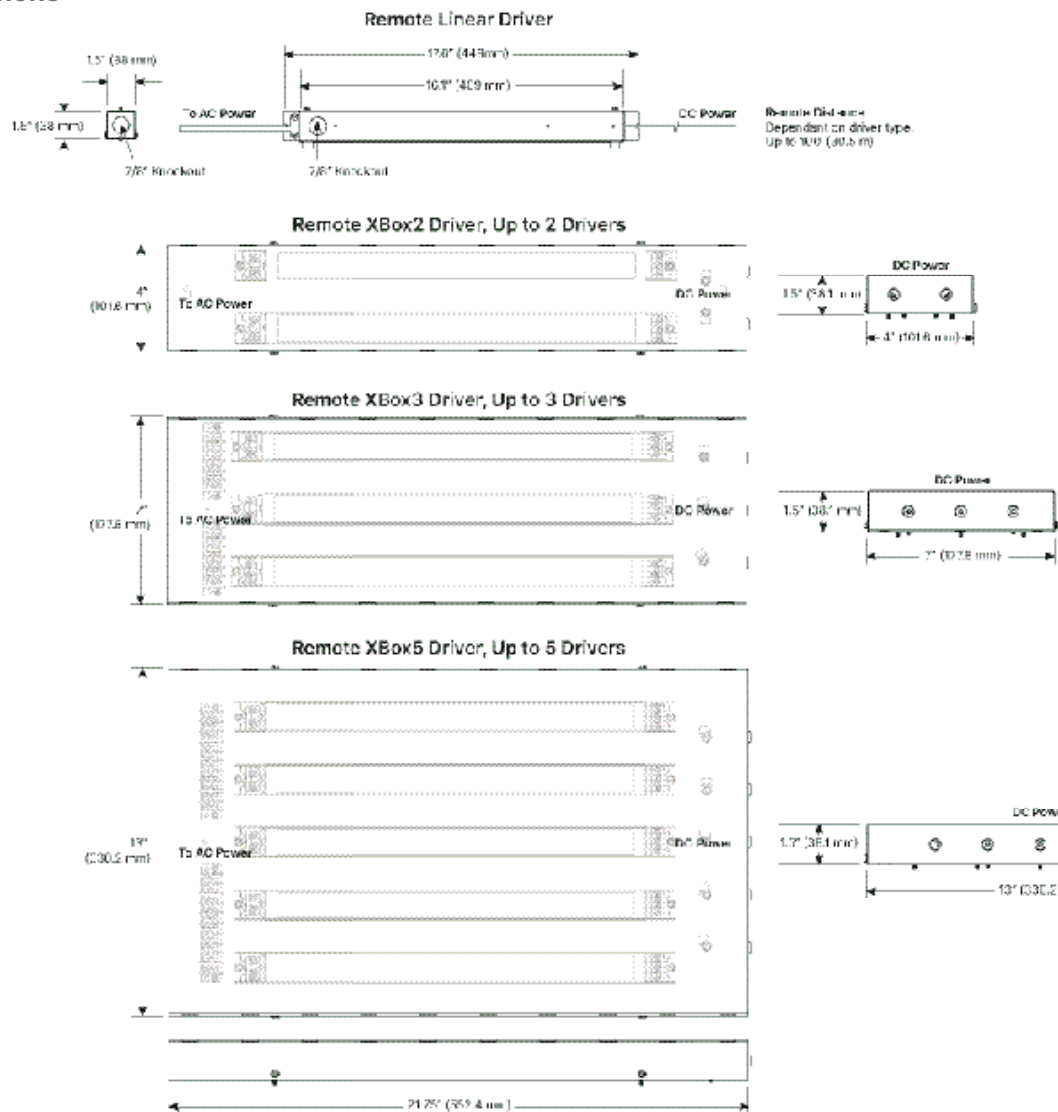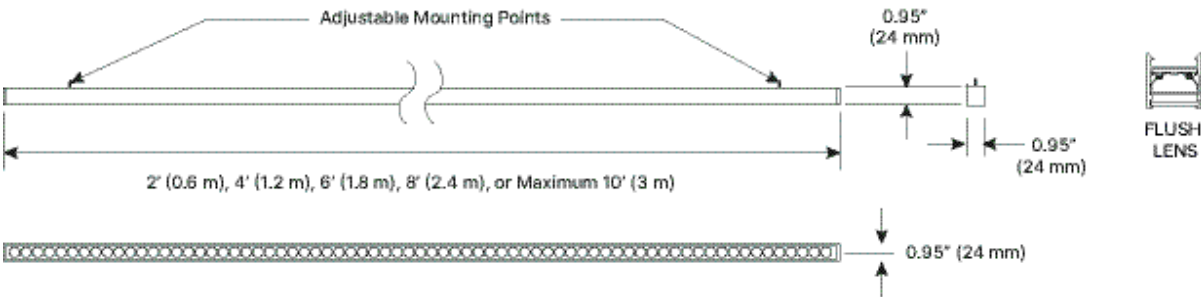[3] The control system and driver must be compatible.

XICO

Project Name	
Fixture Type	

NOTES

REMOTE DRIVER BOX

Dimensions

Remote Linear Driver

Remote XBox2 Driver, Up to 2 Drivers

Remote XBox3 Driver, Up to 3 Drivers

Remote XBox5 Driver, Up to 5 Drivers

FIXTURE DESIGN

Dimensions

To download BIM (Revit) Files, please click or scan the QR Code.

Adjustable Mounting Points

0.95" (24 mm)

FLUSH LENS

0.95" (24 mm)

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

0.95" (24 mm)

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

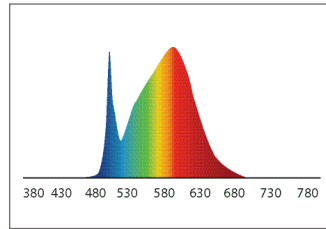|	
Lens Options	Square and Round Nano Cavity Optics
Lens Material	Patented SmartOptics® made from Acrylic (PMMA)

Voltage

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

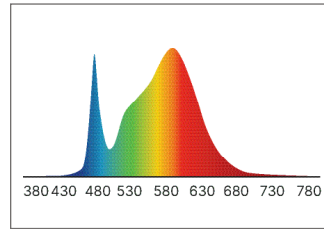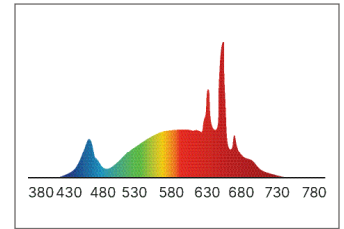# LED SELECTION GUIDE

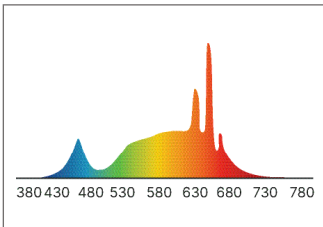**S80: Standard 80+ CRI**
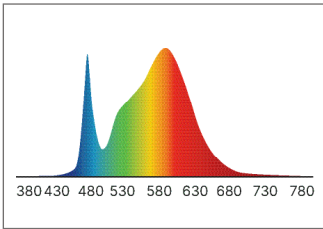
S90: Standard 90+ CRI

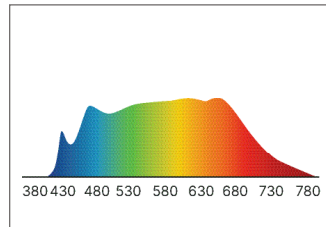**HE80: High-Efficiency 80+ CRI**
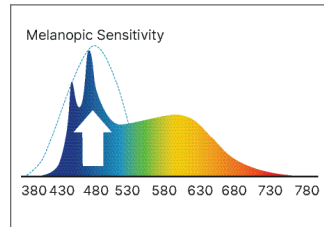

HE90: High-Efficiency 90+ CRI

HD95: High-Definition 95+ CRI
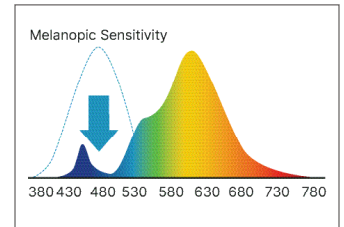

SUN: Full Spectrum "SunLike"

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.
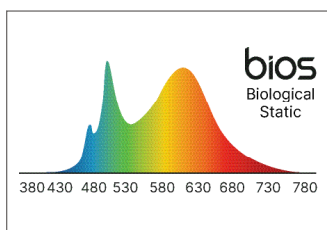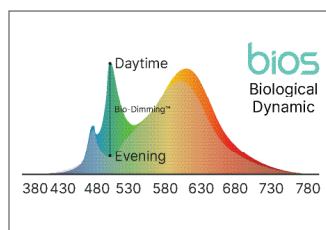
BIOS Static	**BIOS Dynamic**	**BIOS Tunable**	**BIOS Dim-to-Warm**
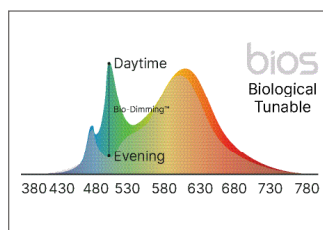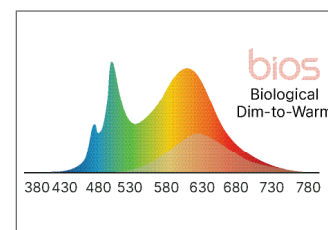
Daytime
No color change when dimmed

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

Partners

| Control Systems	Remote Drivers (Sold Separately)
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

XBox

Remote Driver Boxes (Optional)	To create a clean and organized power solution for multiple fixture installations see our XBox Specification Guide. Reach out to a XICO Sales Representative to discuss you projects needs.
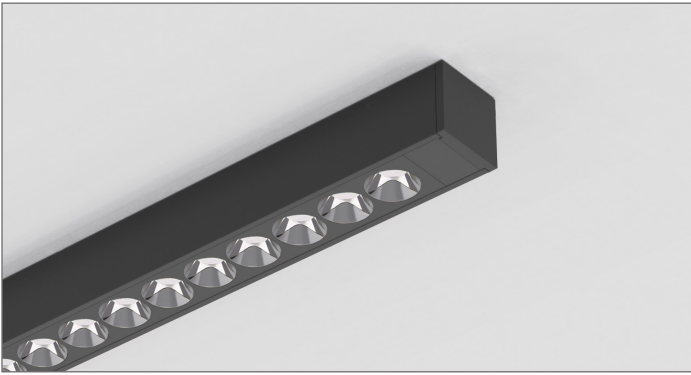
Round NCO
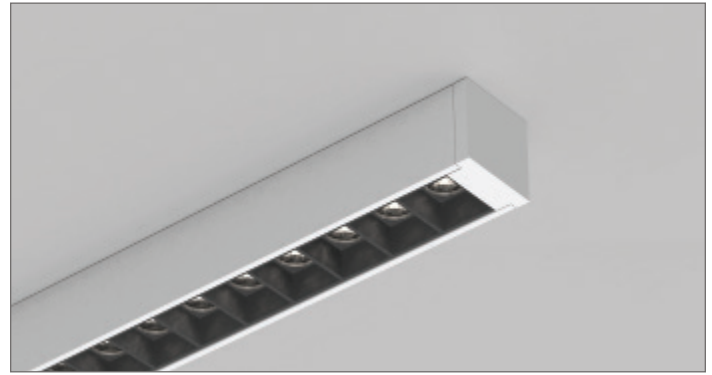
Square NCO

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.

Surface Mount

Installs onto a surface via clip or magnet. Available with a range of accessories, mounts and inserts that provide easy customization of visual appearance and performance enhancements.
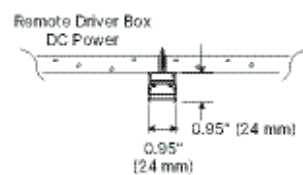
Power Cord

24" Cable Kit

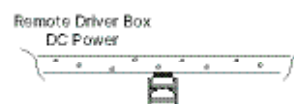White and Black

Mounting Kit

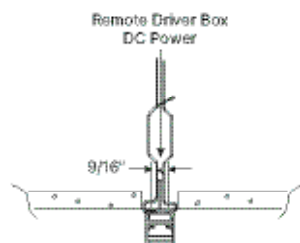**Surface Mounting Bracket**

Stainless Steel

Mounting Options

SC1 - Surface Mount Clip
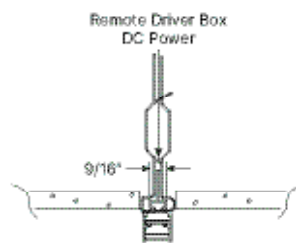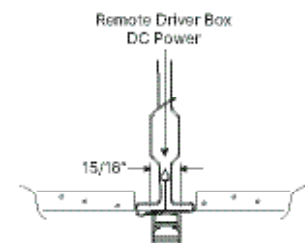

SM1 - Surface Mount Magnet

TC1 - 9/16" Flat T-Bar Mount Clip
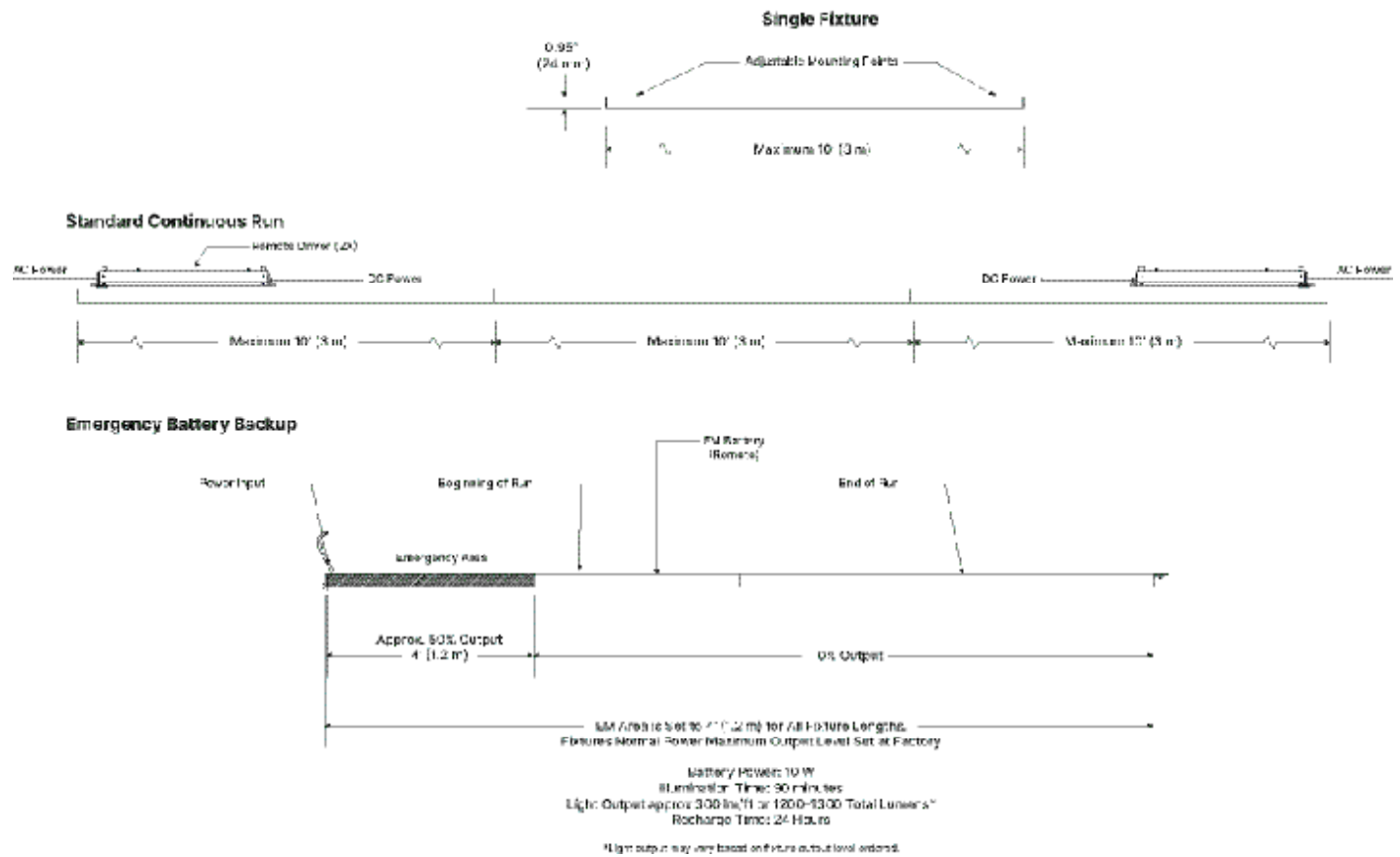

TC2 - 9/16" Bolt Slot T-Bar Mount Clip

TC3 - 15/16" Flat T-Bar Mount Clip

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.

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	
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

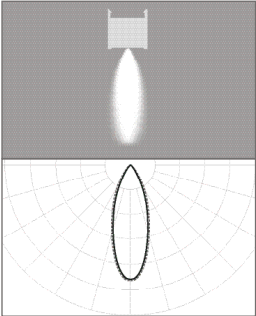|	
Manufacturing	All XICO products and associated optics and LED engines are assembled at our factory in Woburn, MA
Quality Assurance	Each product is engineered reliability and quality assurance tested

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		
	DNCO45	DNCO35	DNCO25
Nano Cavity Optics (NCO)	●	●	●

DIRECT PHOTOMETRICS (cont.)

Static White Light

DNCO45: Nano Cavity Optic 45°   **DNCO35:** Nano Cavity Optic 35°   **DNCO25:** Nano Cavity Optic 25°

Length	48"	**Length**	48"	**Length**	48"
LED	HE80	**LED**	HE80	**LED**	HE80
CRI/CCT	80+/3500K	**CRI/CCT**	80+/3500K	**CRI/CCT**	80+/3500K
Lumens	3,000	**Lumens**	3,000	**Lumens**	3,000
lm/ft	750	**lm/ft**	749	**lm/ft**	750
Watts	37	**Watts**	37	**Watts**	37
W/ft	9	**W/ft**	9	**W/ft**	9
LPW	82	**LPW**	82	**LPW**	82

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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DOC-1103-00   Rev A