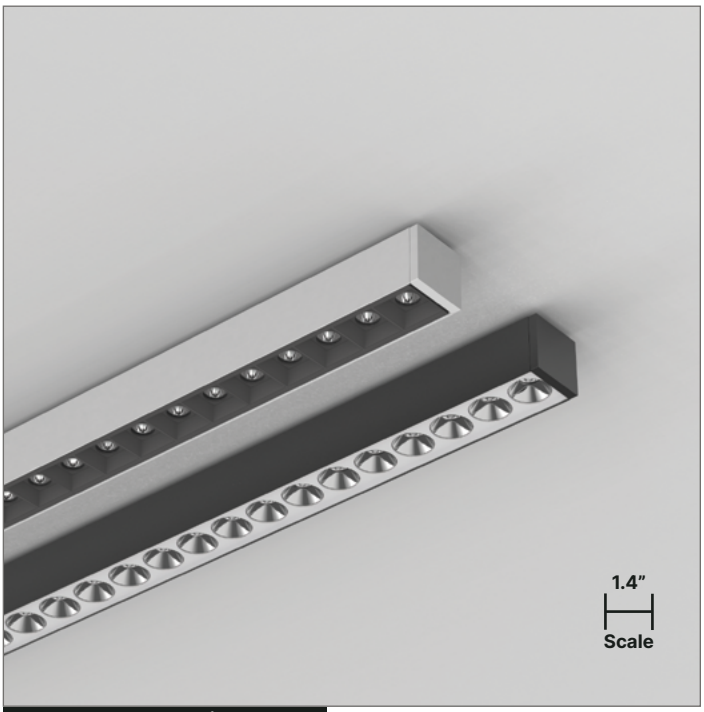
MICROSquare MCO Surface

1.4” Low-Profile Linear LED Surface Mount



Remote 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	FIXTURE FINISH	END CAP	MICRO CAVITY OPTICS (MCO) FINISH
MSQ140MCO-S				

1.4" Low-Profile Linear LED Surface Mount

LENGTH	
2	2'
4	4'
6	6'
8	8'
10	10'
X_	Specify X', Y"

FIXTURE FINISH	
MWH	Matte White (RAL9003)
MBK	Matte Black (RAL9005)
MGR	Matte Gray (RAL7001)
CAE	Clear Anodized Effect
RAL_	Specify RAL#

END CAP	
E1	Flat End Cap

MICRO CAVITY OPTICS (MCO) FINISH	
OSQM-COWH	Square MCO, White
OSQMCOBK	Square MCO, Black
ORMCOWH	Round MCO, White
ORMCOBK	Round MCO, Black

2) LED LIGHT ENGINE

CRI	CCT	DIRECT BEAM PATTERN	DIRECT OUTPUT

CRI	
S80	Std. 80 CRI
S90	Std. 90 CRI
HE80	High-Eff. 80 CRI
HE90	High-Eff. 90 CRI
HD95	High-Def. 95 CRI
SUN	Full SunLike
SBIOS	Static BIOS
DBIOS	Dynamic BIOS
TBIOS	Tunable White BIOS

CCT	
22	2200K
27	2700K
30	3000K
35	3500K
40	4000K
50	5000K
3022D	3000K to 2200K Dim-to-Warm
3527D	3500K to 2700K Dim-to-Warm
X_	Specify CCT

DIRECT BEAM PATTERN	
DMCO45	Micro Cavity Optics 45°
DMCO35	Micro Cavity Optics 35°
DMCO25	Micro Cavity Optics 25°
X_	Specify Beam

DIRECT OUTPUT	
35	350 lm/ft
50	500 lm/ft
75	750 lm/ft
100	1,000 lm/ft
X_	Specify lm/ft

3) FIXTURE POWER & CONTROLS

LINE VOLTAGE (DC)	REMOTE DRIVER (POWER)	EMERGENCY BACKUP	REMOTE DRIVER BOX[2]	CONTROL SYSTEM[4]

LINE VOLTAGE (DC)	
UNV	120/277V
347	347V

REMOTE DRIVER (POWER)	
FDND	Factory Non-Dimming
FD01	Factory 0-10V 1% Dim
FD10	Factory 0-10V 10% Dim
FDDA	Factory DALI 0.1% Dim
FDDX	Factory DMX Dim
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

EMERGENCY BACKUP	
NN	Not Needed
EMC	Emergency Circuit
EMB	Emergency Battery (10 W — Remote)
X_	Specify Backup

REMOTE DRIVER BOX[2]	
NN	Not Needed
RLDB[3]	Remote Linear Driver Box (driver included by default)
RX2D[3]	Optional Remote XBox2 Driver, Up to 2 Drivers
RX3D[3]	Optional Remote XBox3 Driver, Up to 3 Drivers
RX5D[3]	Optional Remote XBox5 Driver, Up to 5 Drivers

CONTROL SYSTEM[4]	
NN	Not Needed
LUT	Lutron
COO	Cooper
CAS	Casambi
X_	Specify Control System

4) FIXTURE MOUNTING & CONNECTIONS

MOUNTING TYPE	POWER CORD	MOUNTING KIT

MOUNTING TYPE	
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

POWER CORD	
S24WH	24" White Cable Kit
S24BK	24" Black Cable Kit

MOUNTING KIT	
SSMB	Stainless Steel Surface Mounting Bracket

Footnotes: [1] Continuous Regressed Lens ships on a roll for seamless lens installation. [2] Remote distance is dependent on driver type, up to 100' (30.5 m).
[3] Creates a clean and organized power solution for multiple fixture installations. [4] The control system and driver must be compatible.

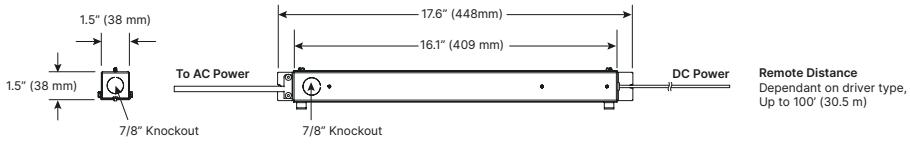
Project Name	
Fixture Type	

NOTES

REMOTE DRIVER BOX

Dimensions

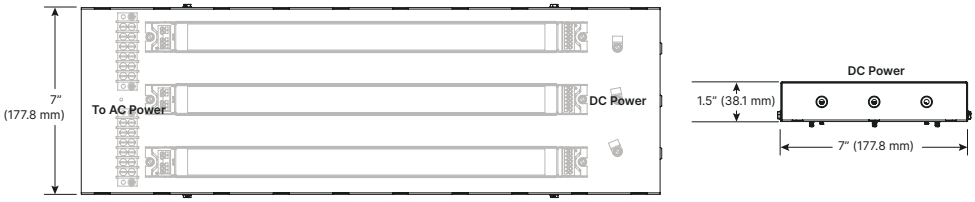
Remote Linear Driver



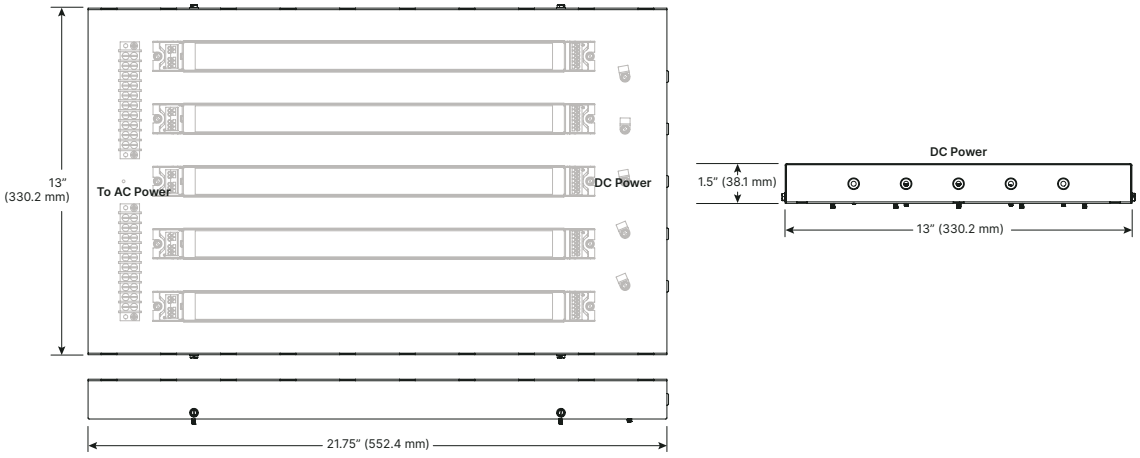
Remote Distance
Dependant on driver type,
Up to 100' (30.5 m)

Remote XBox2 Driver, Up to 2 Drivers

Remote XBox3 Driver, Up to 3 Drivers

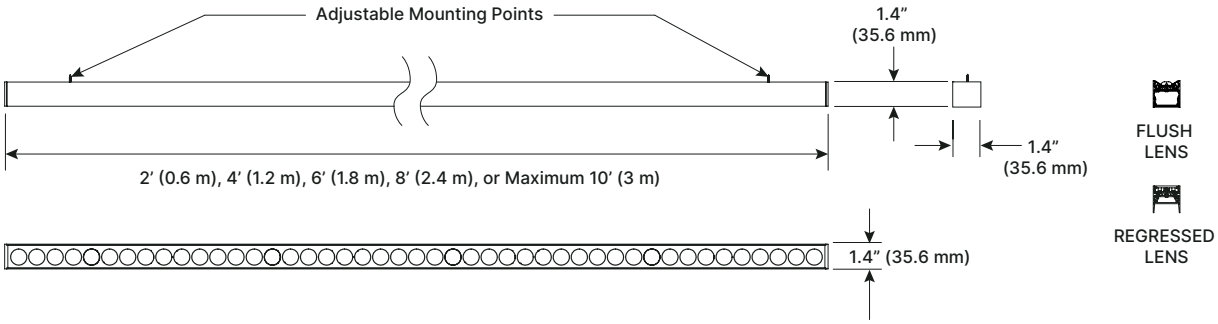


Remote XBox5 Driver, Up to 5 Drivers



FIXTURE DESIGN

Dimensions



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

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

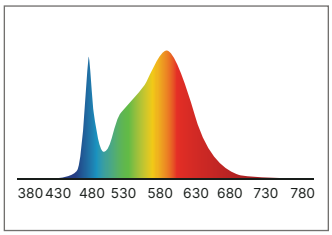
Lens Options	Square and Round Micro Cavity Optics
Lens Material	Patented SmartOptics® made from Acrylic (PMMA)

Voltage

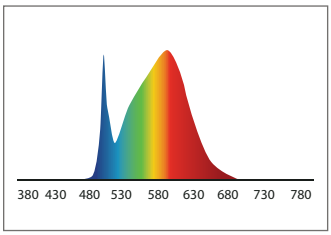
Fixture Voltage (AC)	120–277 VAC and 347 VAC, 50/60 Hz

LED SELECTION GUIDE

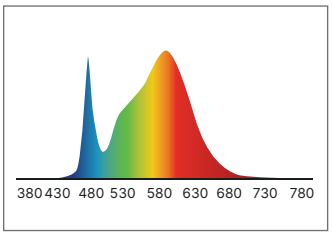
S80: Standard 80+ CRI



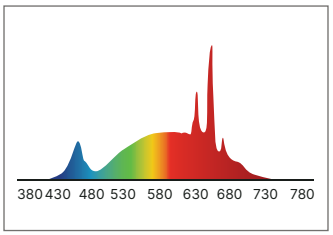
S90: Standard 90+ CRI



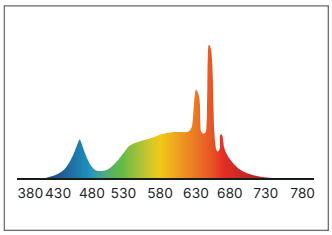
HE80: High-Efficiency 80+ CRI



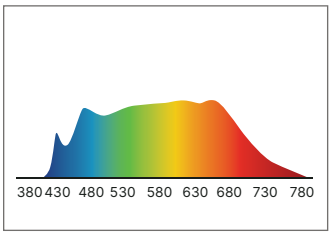
HE90: High-Efficiency 90+ CRI



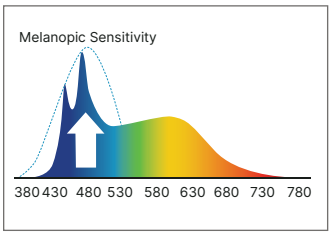
HD95: High-Definition 95+ CRI



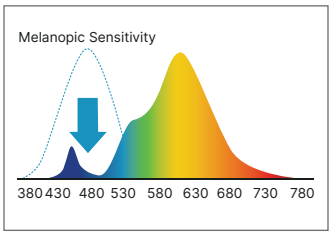
SUN: Full Spectrum "SunLike"



HCD: Human Centric Day



HCN: Human Centric Night



Static White Light (LED Light Engine Only)

		TYPICAL LED DATA							
CODE	**DESCRIPTION**	**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

	CCT SELECTED							
CODE	**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

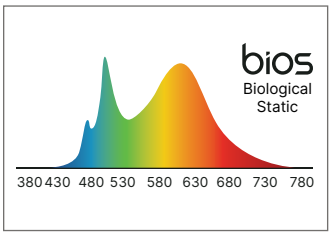
BIOS TECHNOLOGY

Choosing Your BIOS Solution

BIOS 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.

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

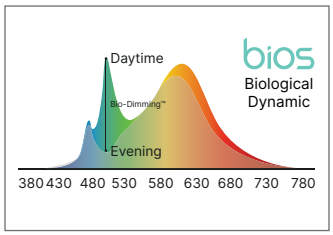
BIOS Static



Daytime
No color change when dimmed

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

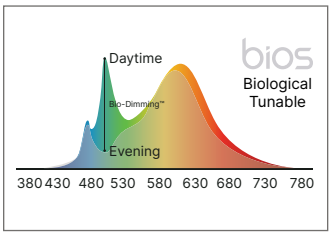
BIOS Dynamic



Daytime & Evening
500K shift when dimmed

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

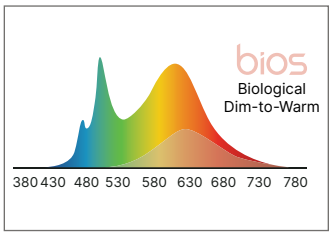
BIOS Tunable



Daytime & Evening
Dims to 2700K

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

BIOS Dim-to-Warm



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

LUTRON® COOPER CASAMBI eldoLED

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.

Square MCOs

Round MCOs

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 Cord

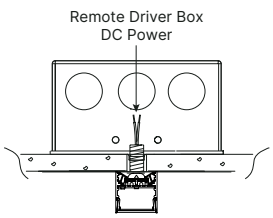
24" Cable Kit	White and Black

Mounting Kit

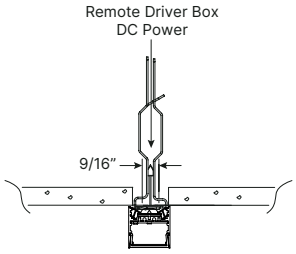
Surface Mounting Bracket	Stainless Steel

Mounting Options

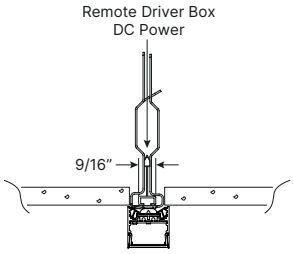
DJ - Drywall/J-Box Mount



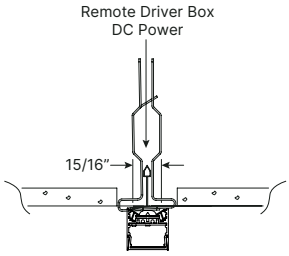
T1 - 9/16" Flat T-Bar Mount



T2 - 9/16" Bolt Slot T-Bar Mount



T3 - 15/16" Flat T-Bar Mount

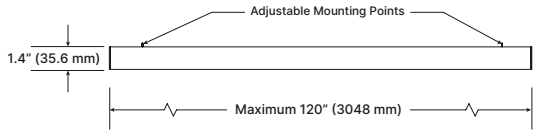


Standard Lengths & Continuous Runs

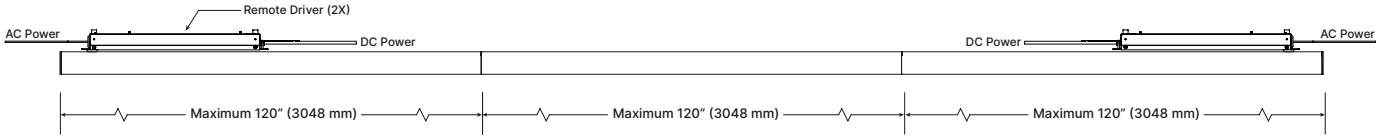
Maximum length of one fixture is 10'. Longer runs can be produced by joining sections. Customer approval of shop drawings is required prior to build of any non-standard length order.

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

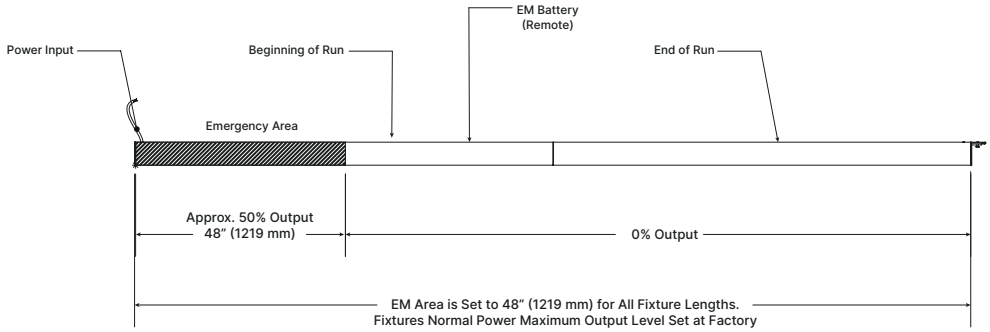
Single Fixture



Standard Continuous Run



Emergency Battery Backup



Battery Power: 10 W
Illumination Time: 90 minutes
Light Output approx 300 lm/ft or 1200–1300 Total Lumens*
Recharge Time: 24 Hours

*Light output may vary based on fixture output level ordered.

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**

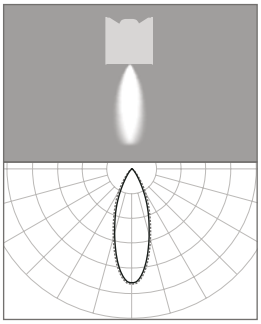
For details on our warranty and business terms, please click or scan the QR Code.

OPTIC	BEAM PATTERN		
	DMCO45	**DMCO35**	**DMCO25**
Micro Cavity Optics (MCO)	●	●	●

DIRECT PHOTOMETRICS (cont.)

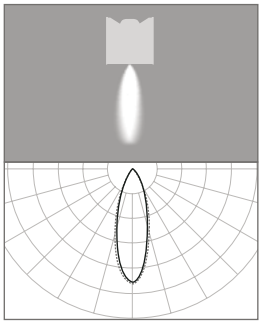
Static White Light

DMCO45: Micro Cavity Optic 45°



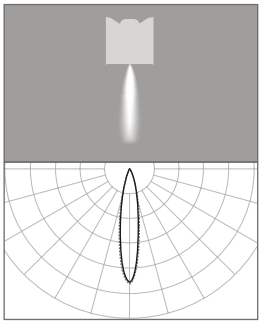
Length	48”
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/ft	749
Watts	37
W/ft	9
LPW	82

DMCO35: Micro Cavity Optic 35°



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

DMCO25: Micro Cavity Optic 25°



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PATENTS & TRADEMARKS

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Utility Patents

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