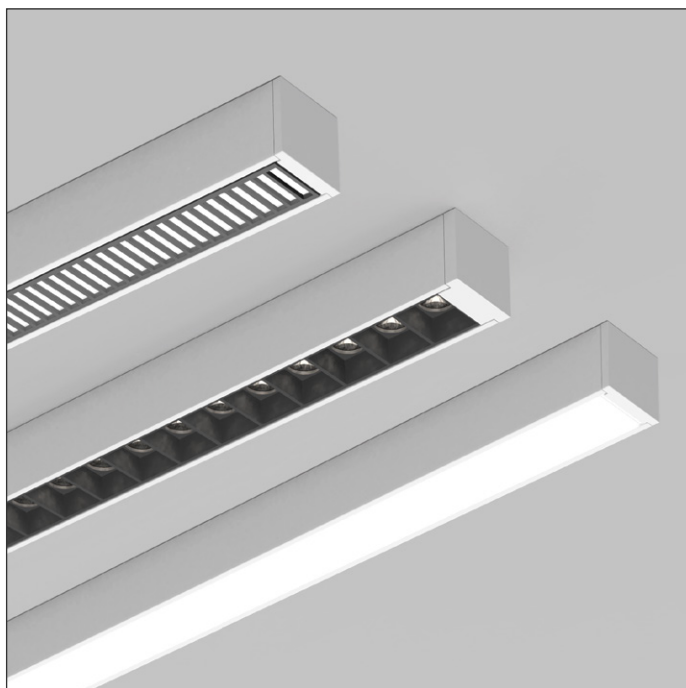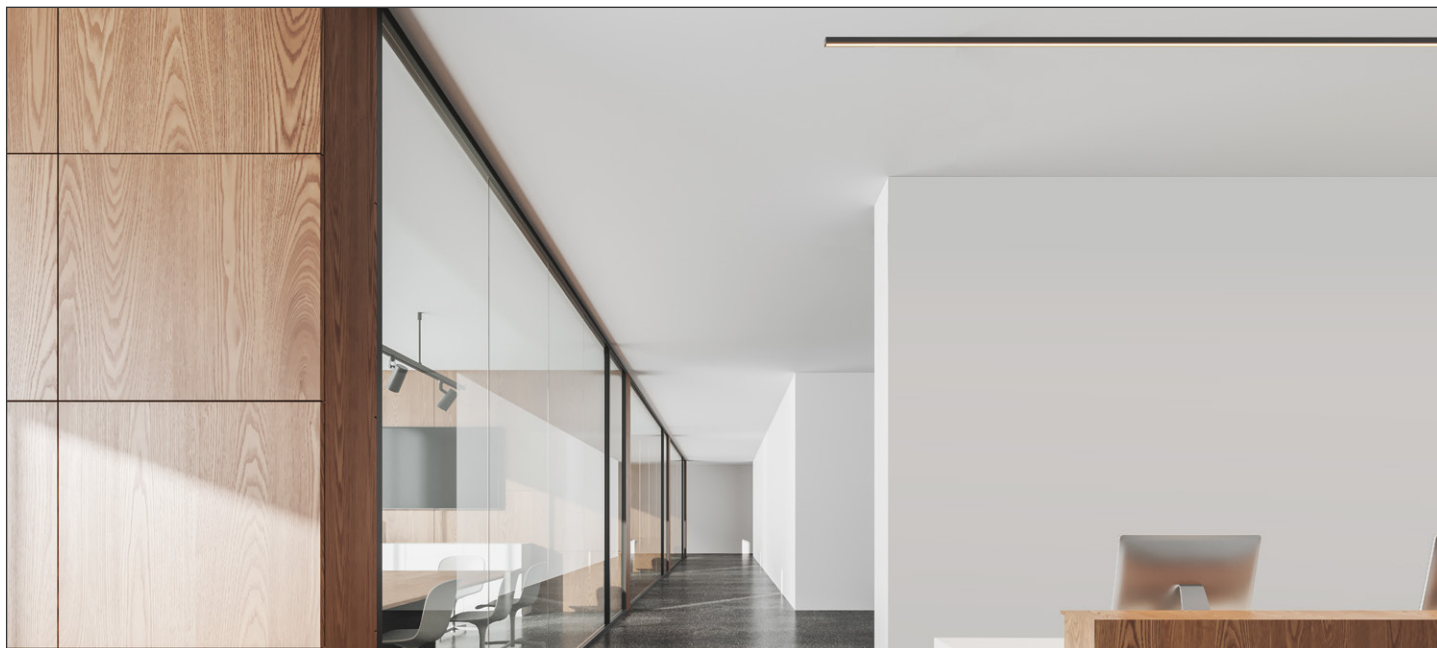# LUMAERA MiniSQ Surface

24mm Compact Linear LED Surface Mount

VEXICA

Remote Driver

Features & Benefits

Exceptional Performance
Up to 3,280 lm/m, 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

Multiple Beamshapes
Clever beam shaping technology creates a range of options

Proprietary Optical Components
Provides excellent light distribution and high-transmission

Compliance
UKCA, CE, UL, Suitable for Dry and Damp Locations

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

LUMAERA MiniSQ Surface

FIXTURE ORDERING

Project Name	
Fixture Type	

1) FIXTURE TYPE & MOUNTING DESIGN

PRODUCT	LENGTH		FINISH		END CAP		OPTIC (Direct Only)	
MNSQ24-S								
24mm Compact	**610mm**	610mm	**MWH**	Matte White (RAL9003)	**E1**	Flat End Cap	**OFL**	Flush Lens
Linear LED	**1220mm**	1220mm	**MBK**	Matte Black (RAL9005)			**OC**	Cavity Optics
Surface Mount	**1830mm**	1830mm	**MGR**	Matte Gray (RAL7001)			**OBWH**	Baffle, White
	2440mm	2440mm	**CAE**	Clear Anodized Effect			**OBBK**	Baffle, Black
	3048mm	3048mm	**RAL_**	Specify RAL#				

2) LED LIGHT ENGINE

CRI		CCT		DIRECT BEAM PATTERN		DIRECT OUTPUT	
S80	Std. 80 CRI	**2200K**	2200K	**DLAM**	Lambertian	**1148**	1148 lm/m
S90	Std. 90 CRI	**2700K**	2700K	**DBW60**	Batwing 60°	**1640**	1640 lm/m
HE80	High-Eff. 80 CRI	**3000K**	3000K	**DDA70**	Double Asymmetric 70°	**2460**	2,460 lm/m
HE90	High-Eff. 90 CRI	**3500K**	3500K	**DA5025**	Asymmetric 50°	**3280**	3,280 lm/m
HD95	High-Def. 95 CRI	**4000K**	4000K		at 25° Tilt		
SUN	Full SunLike	**5000K**	5000K	**DA4005**	Asymmetric 40°		
SBIOS	Static BIOS	**3022D**	3000K to 2200K		at 5° Tilt		
DBIOS	Dynamic BIOS		Dim-to-Warm	**DM55**	Medium 55°		
TBIOS	Tunable White BIOS	**3527D**	3500K to 2700K	**DN40**	Narrow 40°		
			Dim-to-Warm	**DCO45**	Cavity Optics 45°		
				DCO35	Cavity Optics 35°		
				DCO25	Cavity Optics 25°		

3) FIXTURE POWER & CONTROLS

LINE VOLTAGE (DC)		EMERGENCY BACKUP		REMOTE DRIVER BOX[1]	
UNV	120/277V	**NN**	Not Needed	**NN**	Not Needed
347	347V	**EMC**	Emergency Circuit	**RLDB2**[2]	Remote Linear Driver Box (driver included by default)
		EMB	Emergency Battery (Remote)	**RX2D2**[2]	Optional Remote XBox2 Driver, Up to 2 Drivers
				RX3D2[2]	Optional Remote XBox3 Driver, Up to 3 Drivers
				RX5D2[2]	Optional Remote XBox5 Driver, Up to 5 Drivers

4) FIXTURE TYPE & MOUNTING DESIGN

MOUNTING TYPE		POWER CORD		MOUNTING KIT	
SC1	Surface Mount Clip	**P12WH**	1.2m White Cord (Ø 3mm)	**SSMB**	Stainless Steel Surface Mounting Bracket
SM1	Surface Mount Magnet	**P12BK**	1.2m Black Cord (Ø 3mm)		
TC1	14mm Flat T-Bar Mount	**P24WH**	2.4m White Cord (Ø 3mm)		
TC2	14mm Bolt Slot T-Bar Mount	**P24BK**	2.4m Black Cord (Ø 3mm)		
TC3	24mm Flat T-Bar Mount				

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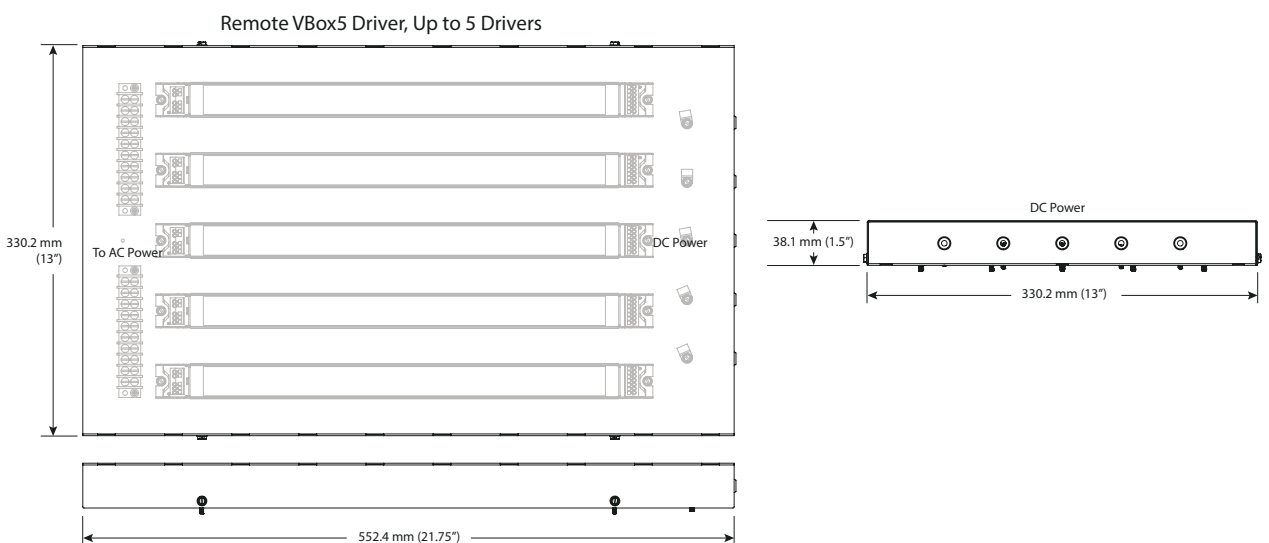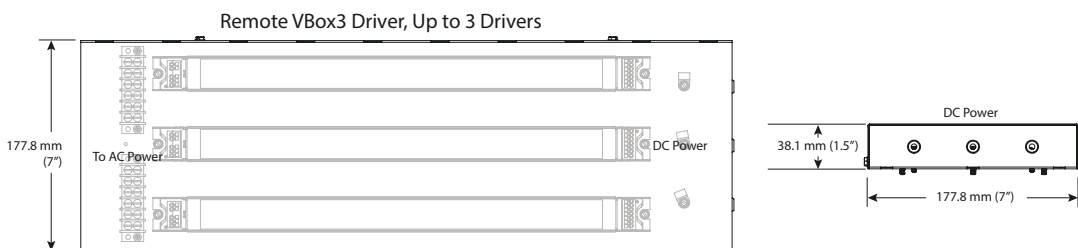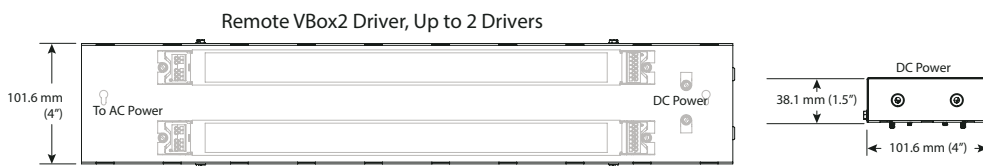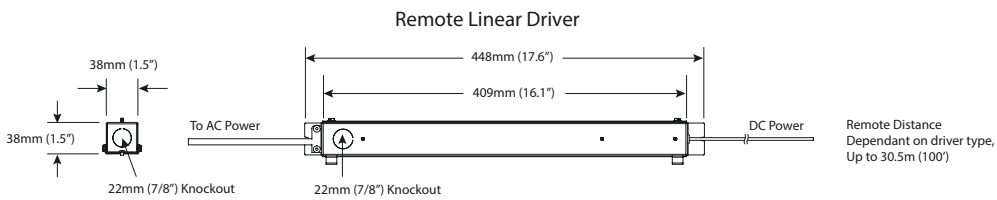[3] The control system and driver must be compatible.

Project Name	
Fixture Type	

NOTES

REMOTE DRIVER BOX

Dimensions

Remote Linear Driver

38mm (1.5")

38mm (1.5")

22mm (7/8") Knockout

448mm (17.6")

409mm (16.1")

To AC Power

22mm (7/8") Knockout

DC Power

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

Remote VBox2 Driver, Up to 2 Drivers

101.6 mm (4")

To AC Power

DC Power

DC Power

38.1 mm (1.5")

101.6 mm (4")

Remote VBox3 Driver, Up to 3 Drivers

177.8 mm (7")

To AC Power

DC Power

DC Power

38.1 mm (1.5")

177.8 mm (7")

Remote VBox5 Driver, Up to 5 Drivers

330.2 mm (13")

To AC Power

DC Power

DC Power

38.1 mm (1.5")

330.2 mm (13")

552.4 mm (21.75")

FIXTURE DESIGN

Dimensions

Adjustable Mounting Points

24mm (0.95")

610mm (24" m), 1220mm (48"), 1830mm (72"), 2440mm (96"), or Maximum 3048mm (120")

24mm (0.95")

FLUSH LENS

24mm (0.95")

24mm (0.95")
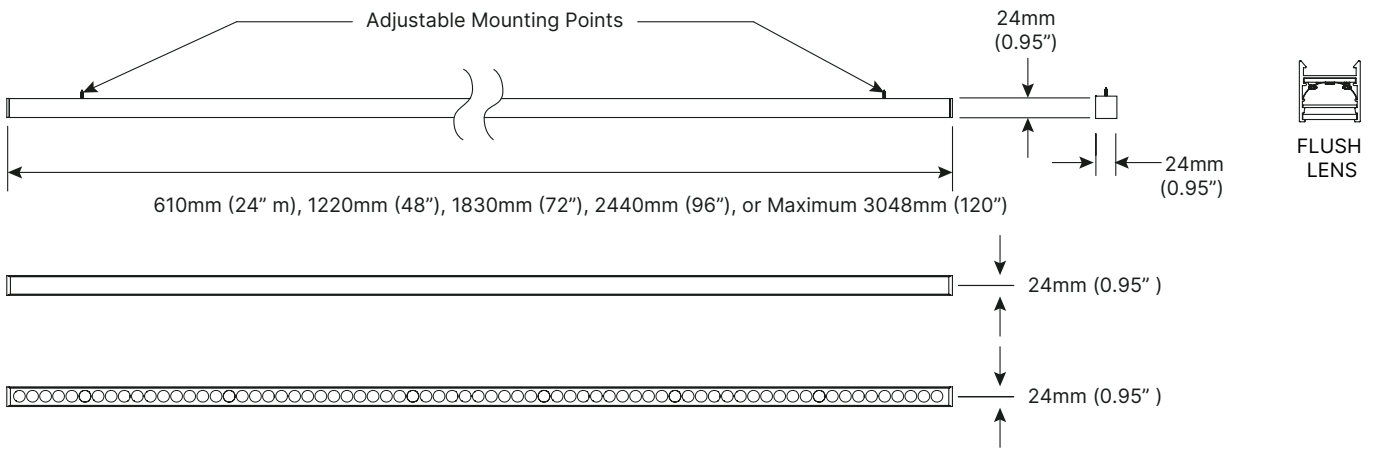
Length

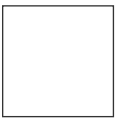|	
Length Options	610mm, 1220mm, 1830mm, 2440mm, 3048mm nominal

Finish

Housing Colours (Matt Finish)

White (RAL9003)   Black (RAL9005)   Gray (RAL7001)   Clear Anodised Effect   Custom RAL
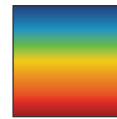
Housing Material	6063-T5 extruded, recycled aluminum
Mounting Brackets	Sheet Metal

End Cap

End Cap Options	Flat
End Cap Material	Machined or Cast Aluminium

Optic

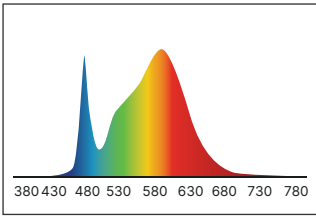|	
Lens Options	Flush, Cavity Optics and Baffle
Lens Material	Acrylic (PMMA)

Voltage

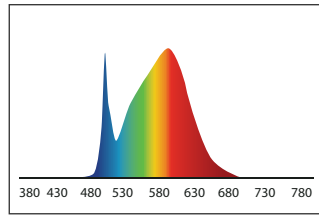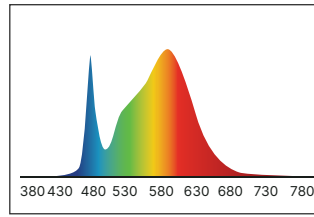|	
Input Voltage (AC)	120/277 VAC and 347 VAC, 50/60Hz

LED SELECTION GUIDE
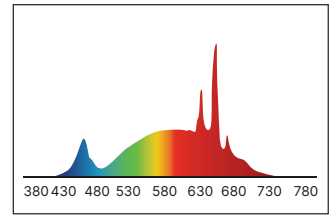
S80: Standard 80+ CRI

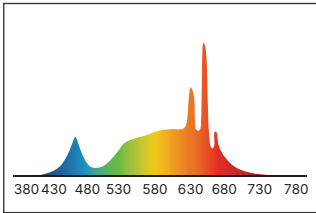

S90: Standard 90+ CRI
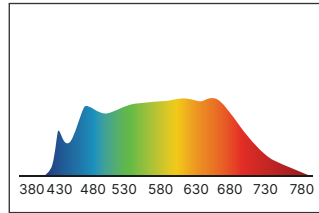

HE80: High-Efficiency 80+ CRI

HE90: High-Efficiency 90+ CRI
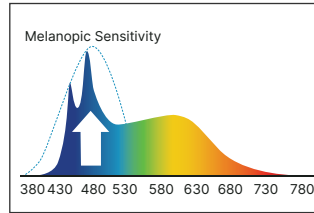

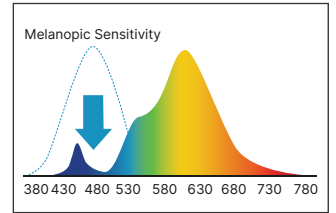**HD95:** High-Definition 95+ CRI

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

Static White Light (LED Light Engine Only)

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
SUN	-	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.

BIOS Static

380 430 480 530 580 630 680 730 780

Daytime

No color change when dimmed

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

BIOS Dynamic

380 430 480 530 580 630 680 730 780

Daytime & Evening

500K shift when dimmed

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

BIOS Tunable

380 430 480 530 580 630 680 730 780

Daytime & Evening

Dims to 2700K

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

BIOS Dim-to-Warm

380 430 480 530 580 630 680 730 780

Daytime & Evening

Dims from cool to warm

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

Circadian and Human Centric Light

CODE	DESCRIPTION	BIO-DIMMING MODULE TECHNOLOGY GUIDE					
		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 (2 ch)				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 & pectrum Change Controlled Together	Removed with BIO-Dimming
TBIOS-2	BIOS Tunable (2 ch)				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 (2 ch)				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 Vexica indoor product; it is now possible to create truly tailored and engaging lighting that transform spaces, improves visual comfort, and saves energy.

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 1.2m sections
Power	10W
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

VBOX

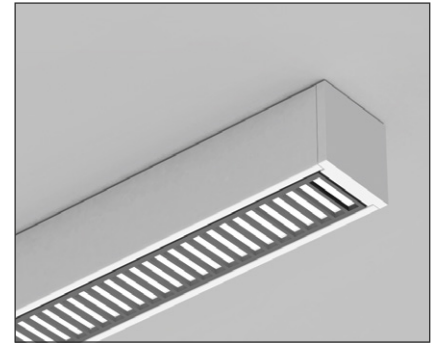|	
Remote Driver Boxes **(Optional)**	To create a clean and organized power solution for multiple fixture installations we have our our VBox solution. Reach out to your Vexica Sales Representative for more information.

OPTICS OPTIONS
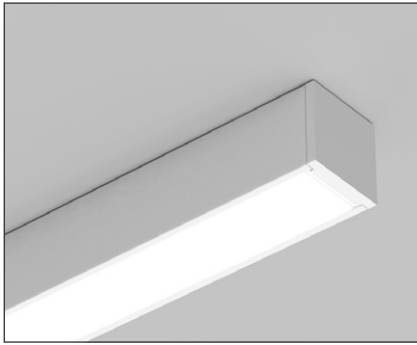
Flush Lens
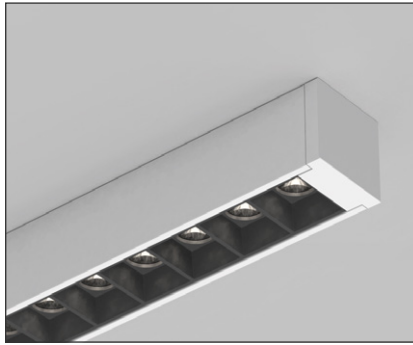
Cavity Optics

Baffles (Black or White)

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 Cords

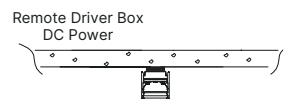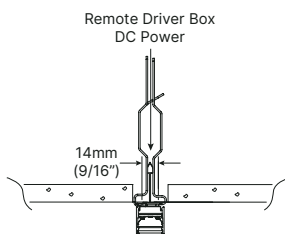|	
1.2m Cable Kit	White and Black
2.4m Cable Kit	White and Black

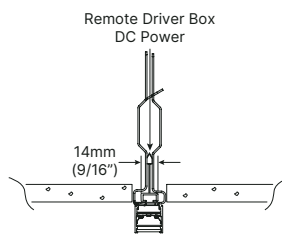### Mounting Options

SC1 - Surface Mount Clip
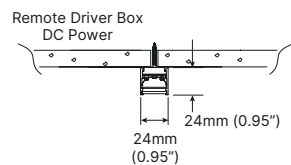
SM1 - Surface Mount Magnet

TC1 - 14mm Flat T-Bar Mount Clip

TC2 - 14mm Bolt Slot T-Bar Mount Clip

TC3 - 24mm Flat T-Bar Mount Clip
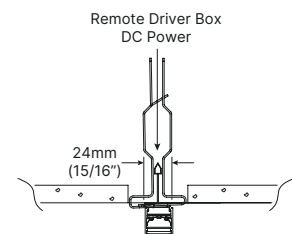
Standard Lengths & Continuous Runs

Maximum length of one fixture is 3048mm. Longer runs can be produced by joining sections. Customer approval of shop drawings is required prior to build of any non-standard length order.

Single Fixture

24mm
(0.95")

Adjustable Mounting Points

Maximum
3048mm (120")

Standard Continuous Run

Remote Driver (2X)

AC Power

DC Power

DC Power

AC Power

Maximum
3048mm (120")

Maximum
3048mm (120")
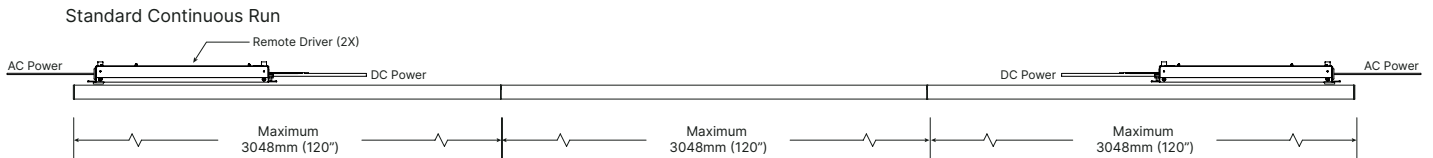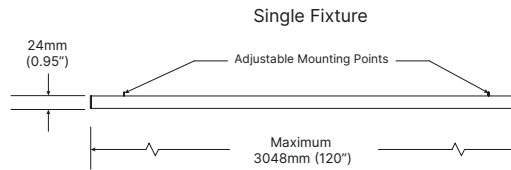
Maximum
3048mm (120")

Emergency Battery Backup

EM Battery
(Remote)

Power Input

Beginning of Run

End of Run

Emergency Area

Approx. 50% Output
1220mm
(48")

0% Output
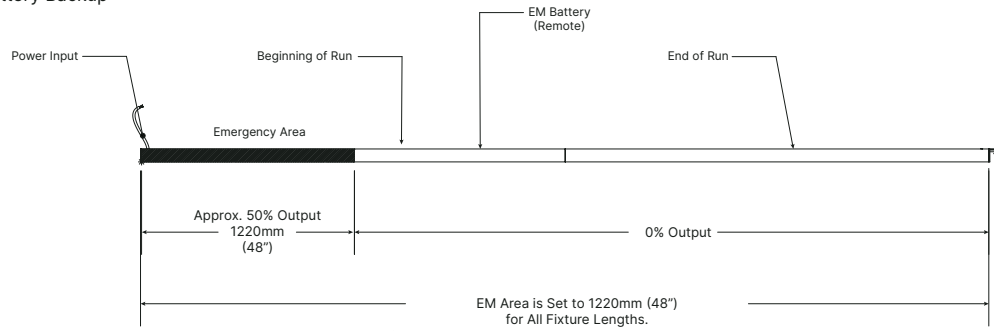
EM Area is Set to 1220mm (48")
for All Fixture Lengths.
Fixtures Normal Power Maximum Output Level Set at Factory

Battery Power: 10 W
Illumination Time: 90 minutes
Light Output approx 984 lm/m or 1200–1300 Total Lumens*
Recharge Time: 24 Hours

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

BEAM PATTERN SELECTION GUIDE

Beam Pattern Availability

OPTIC	BEAM PATTERN									
	DLAM	DBW60	DDA70	DA5025	DA4005	DM55	DN40	DCO45	DCO35	DCO25
Flush Lens	*	*	*	*	*	*	*			
Baffle	*	*	*	*	*	*	*			
Cavity Optics (CO)								*	*	*

Direct Photometrics Static White Light

DLAM
Lambertian

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,510
Watts	27
W/m	22.6
LPW	111

DBW60
Batwing 60°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,441
Watts	24
W/m	19.8
LPW	123

DDA70
Double Asymmetric 70°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,493
Watts	25
W/m	20.3
LPW	123

DA5025
Asymmetric 50° at 60° Tilt

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,457
Watts	23
W/m	18.9
LPW	130

DA4005
Asymmetric 40° at 5° Tilt

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,421
Watts	23
W/m	18.9
LPW	128

DM55
Medium 55°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,434
Watts	23
W/m	18.9
LPW	129

DN40
Narrow 40°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,447
Watts	26
W/m	21.1
LPW	116

DCO45
Cavity Optic 45°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,461
Watts	37
W/m	30
LPW	82

DCO35
Cavity Optic 35°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,457
Watts	37
W/m	30
LPW	82

DCO25
Cavity Optic 25°

Length	1220mm
LED	HE80
CRI/CCT	80+/3500K
Lumens	3,000
lm/m	2,461
Watts	37
W/m	30
LPW	82

STANDARDS & CERTIFICATIONS

Compliance

Standard Marks

Environmental Suitability

IP Rating	Suitable for Dry and Damp Locations, indoor use only
Sustainability	Responsibly manufactured from materials that are free from 'Red List' chemicals
Recyclable	Optics and all powder coated and anodized parts are fully recyclable at end of life

Reliability

Manufacturing	All Vexica products are manufactured in our UK-based factory using ethically sourced componets from internationally recognised 'tier 1' suppliers
Quality Assurance	Each product is designed and manufactured for reliability and each batch undergoes through quality assurance testing

Warranty & Terms

5 Year Warranty

Terms & Conditions

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

VEXICA

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