# LUMAERA MidiSQ Surface

**VEXICA**

## 36mm Well-Proportioned Linear LED Surface Mount





**Remote Driver**

## Features & Benefits

**Exceptional Performance**
Up to 3,280 lm/m, 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

**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

## FIXTURE ORDERING

| Project Name | |
|---|---|
| Fixture Type | |

### 1) FIXTURE TYPE & MOUNTING DESIGN

| PRODUCT | LENGTH | FINISH | END CAP | OPTIC (Direct Only) |
|---|---|---|---|---|
| **MDSQ36-S** | | | | |

| PRODUCT | LENGTH | | FINISH | | END CAP | | OPTIC (Direct Only) | |
|---|---|---|---|---|---|---|---|---|
| 36mm Well-Proportioned Linear LED Surface Mount | **610mm** | 610mm | **MWH** | Matte White (RAL9003) | **E1** | Flat End Cap | **FL** | Flush Lens |
| | **1220mm** | 1220mm | **MBK** | Matte Black (RAL9005) | | | **RL** | Regressed Lens |
| | **1830mm** | 1830mm | **MGR** | Matte Gray (RAL7001) | | | **CRL** | Continuous Regressed Lens[1] |
| | **2440mm** | 2440mm | **CAE** | Clear Anodized Effect | | | **BWH** | Baffle, White |
| | **3048mm** | 3048mm | **RAL_** | Specify RAL# | | | **BBK** | Baffle, Black |
| | | | | | | | **SCOWH** | Square Cavity Optics, White |
| | | | | | | | **SCOBK** | Square Cavity Optics, Black |
| | | | | | | | **RCOWH** | Round Cavity Optics, White |
| | | | | | | | **RCOBK** | Round Cavity Optics, Black |

### 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 | **DA3010** | Asymmetric 30° at 10° Tilt | **3280** | 3,280 lm/m |
| **HD95** | High-Def. 95 CRI | **4000K** | 4000K | | | | |
| **SUN** | Full SunLike | **5000K** | 5000K | **DA3015** | Asymmetric 30° at 15° Tilt | | |
| **SBIOS** | Static BIOS | **3022D** | 3000K to 2200K Dim-to-Warm | **DM70** | Medium 70° | | |
| **DBIOS** | Dynamic BIOS | | | **DN40** | Narrow 40° | | |
| **TBIOS** | Tunable White BIOS | **3527D** | 3500K to 2700K Dim-to-Warm | **DCO45** | Cavity Optics 45° | | |
| | | | | **DCO35** | Cavity Optics 35° | | |
| | | | | **DCO25** | Cavity Optics 25° | | |

### 3) FIXTURE POWER OPTIONS

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

### 4) FIXTURE TYPE & MOUNTING DESIGN

| MOUNTING TYPE | | POWER CORD | | MOUNTING KIT | |
|---|---|---|---|---|---|
| | | | | | |
| **DJ** | Drywall/J-Box Mount | **P6WH** | 0.6m White Cord (Ø 3mm) | **SSMB** | Stainless Steel Surface Mounting Bracket |
| **T1** | 14mm Flat T-Bar Mount | **P6BK** | 0.6m Black Cord (Ø 3mm) | | |
| **T2** | 14mm Bolt Slot T-Bar Mount | | | | |
| **T3** | 24mm Flat T-Bar Mount | | | | |

[1]Continuous Regressed Lens ships on a roll for seamless lens installation.
[2]Remote distance is dependent on driver type, up to 30.5m.
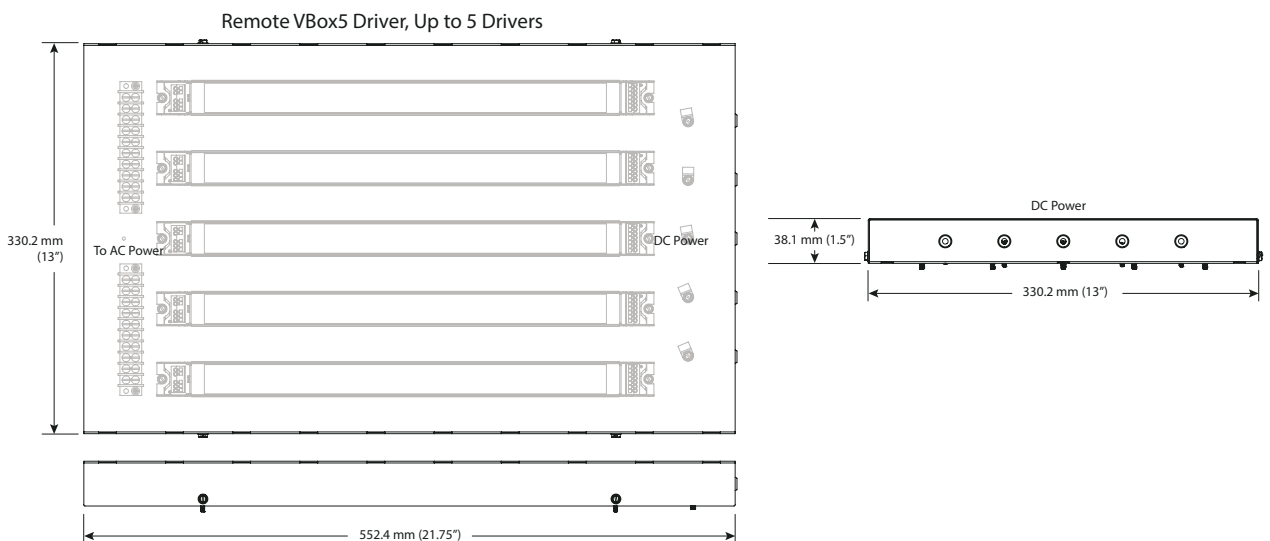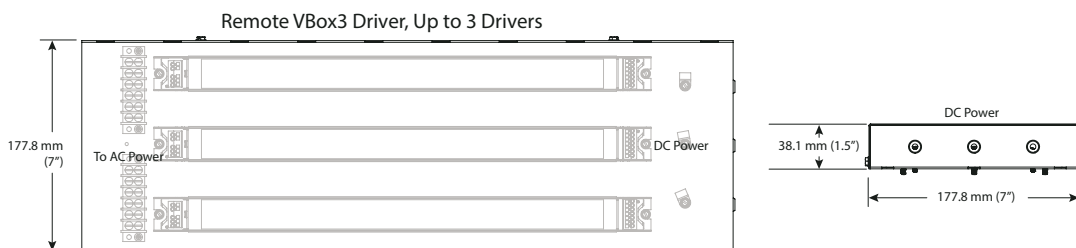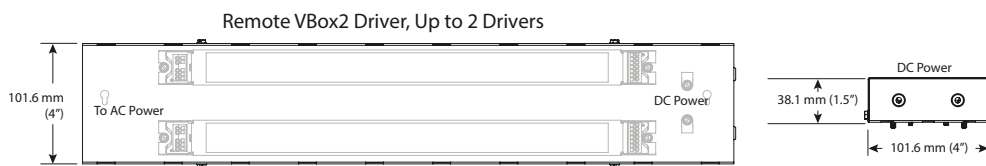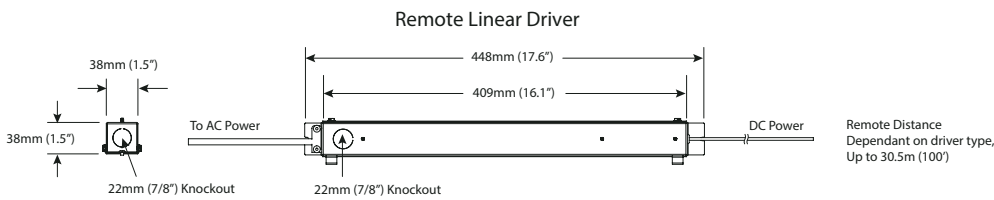[3]Creates a clean and organised power solution for multiple fixture installations.

| Project Name | |
|---|---|
| Fixture Type | |

**NOTES**

## REMOTE DRIVER BOX

**Dimensions**

Remote Linear Driver



38mm (1.5")

38mm (1.5")

448mm (17.6")

409mm (16.1")

To AC Power

DC Power

22mm (7/8") Knockout

22mm (7/8") Knockout

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

35.6 mm (1.4")

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

35.6 mm (1.4")

FLUSH LENS

REGRESSED LENS

35.6 mm (1.4")

35.6 mm (1.4")
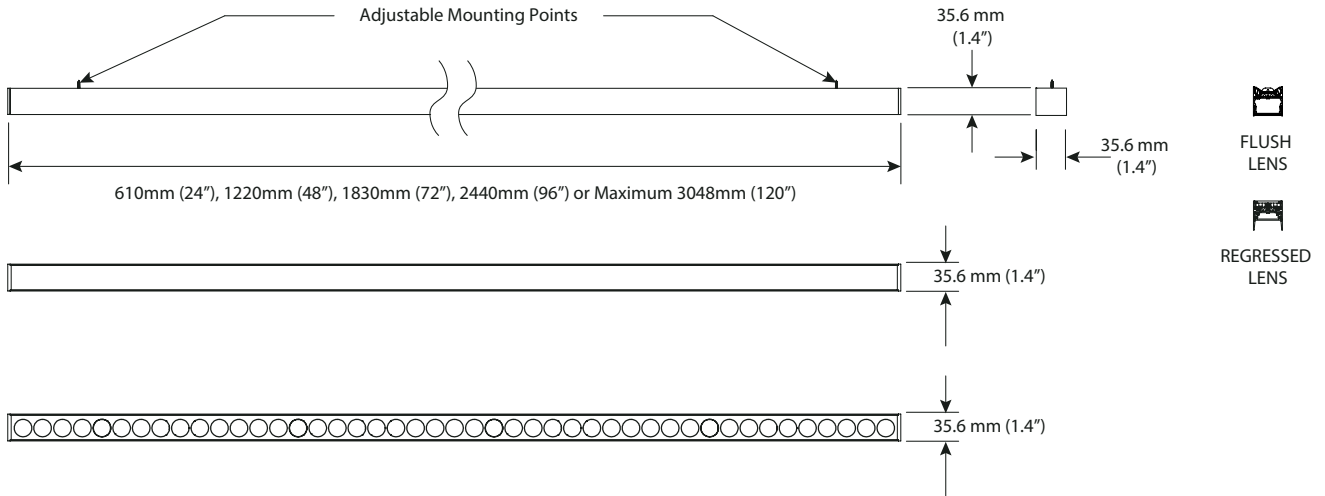
### Length

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

### Finish

**Housing Colours (Matt Finish)**
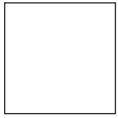
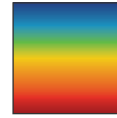White (RAL9003)    Black (RAL9005)    Gray (RAL7001)    Clear Anodised Effect    Custom RAL

**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, Regressed, Continuous Regressed, Cavity Optics, and Baffled

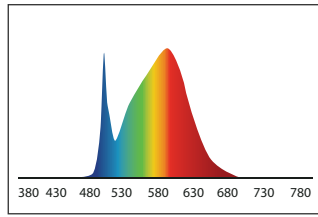**Lens Material**               Acrylic (PMMA)

### Voltage

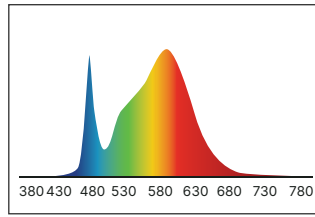**Input Voltage (AC)**          120/277 VAC and 347 VAC, 50/60Hz

## LED SELECTION GUIDE
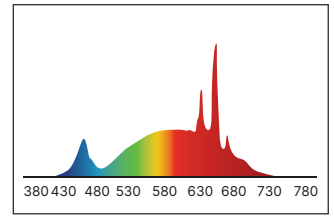
**S80:** Standard 80+ CRI
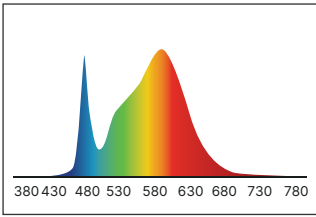
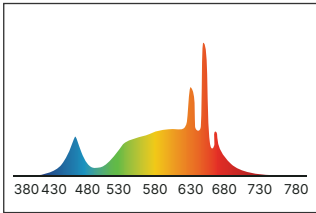**S90:** Standard 90+ CRI
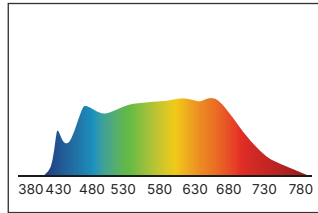
**HE80:** High-Efficiency 80+ CRI

**HE90:** High-Efficiency 90+ CRI

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

**SUN:** Full Spectrum "SunLike"

**HCD:** Human Centric Day

Melanopic Sensitivity

**HCN:** Human Centric Night

Melanopic Sensitivity
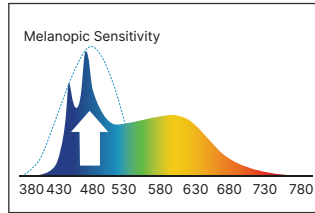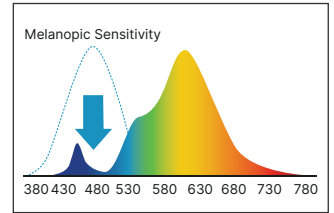
### Static White Light (LED Light Engine Only)

| 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** | **BIOS Dynamic** | **BIOS Tunable** | **BIOS Dim-to-Warm** |
|---|---|---|---|
|  |  |  |  |
| **Daytime** | **Daytime & Evening** | **Daytime & Evening** | **Daytime & Evening** |
| No color change when dimmed | 500K shift when dimmed | Dims to 2700K | Dims from cool to warm |
| Spaces that operate during daytime hours - 7am and 7pm | Spaces that operate overnight - after 7pm and before 7am | Spaces that operate with overnight shifts - after 7pm and before 7am | 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

### Input 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 1220mm 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

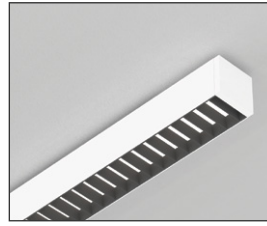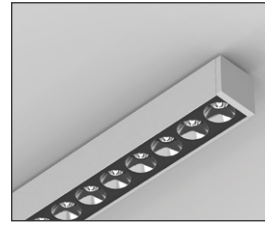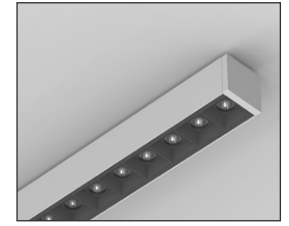| | |
|---|---|
| **Remote Driver Boxes (Optional)** | To create a clean and organized power solution for multiple fixture installations we have our our VBox solution. Reach out to your Vexica Sales Representative for more information. |

## OPTICS OPTIONS
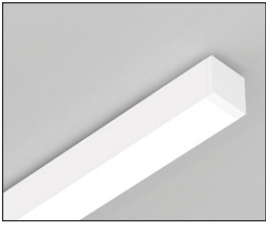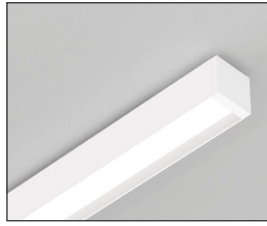


| Flush Lens | Regressed Lens | Baffles (Black or White) | Round Cavity Optics (Black or White) | Square Cavity Optics (Black or White) |

## FIXTURE MOUNTING & CONNECTIONS

### Mounting Type

**T-Bar Mount**    Installs in to a ceiling grid system, mounting onto or replacing, typical 'T-Bar' elements. Available with a range of accessories, mounts and inserts that provide customisation of visual appearance and performance enhancements.

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

### Mounting Kit
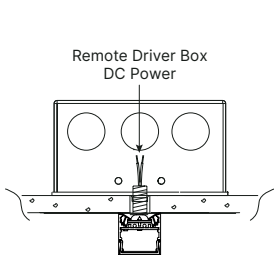
**Surface Mounting Bracket**    Stainless Steel

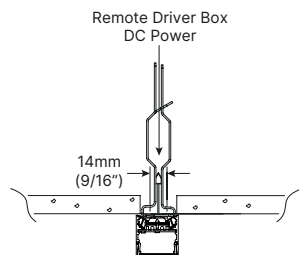### Power Cord

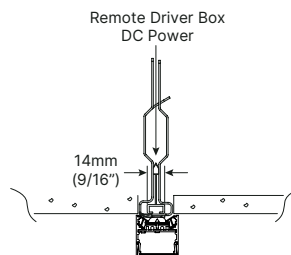**Cable Kit**    600mm, White or Black

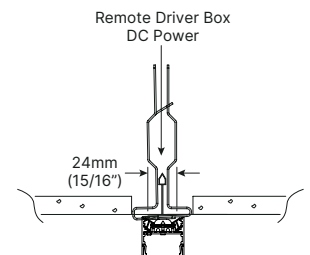### Mounting Options

DJ - Drywall/J-Box Mount



T1 - 14mm Flat T-Bar Mount
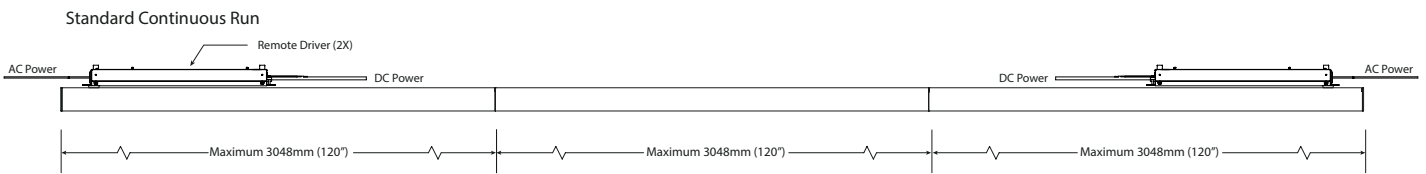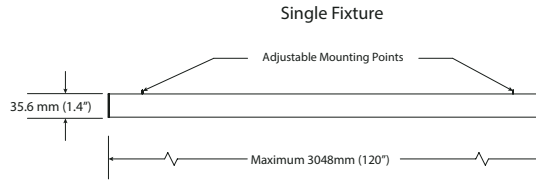


T2 - 14mm Bolt Slot T-Bar Mount
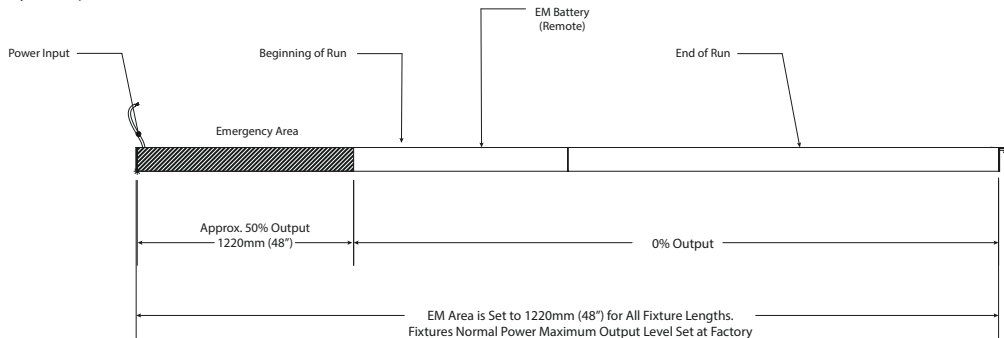


T3 - 24mm Flat T-Bar Mount

## 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.

Lens can be supplied in a maximum 76m roll length with continuous FlatLENS optics to be installed on-site for a seamless light surface.

Single Fixture

Adjustable Mounting Points

35.6 mm (1.4")

Maximum 3048mm (120")

Standard Continuous Run

AC Power

Remote Driver (2X)

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

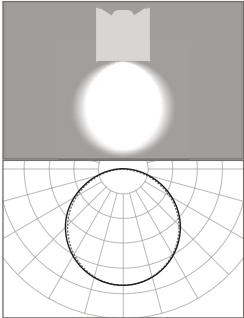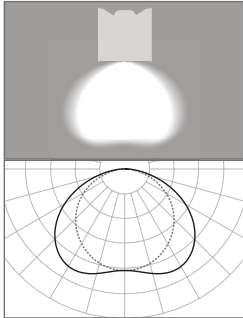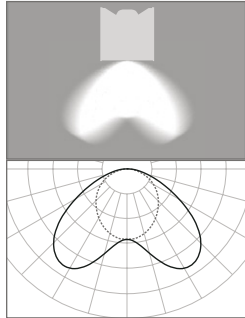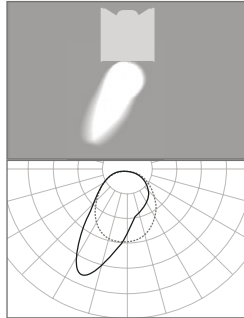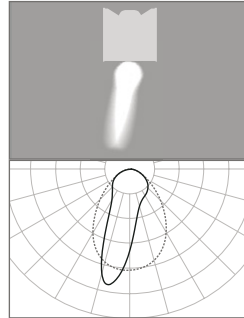*Light output may vary based on fixture output level ordered.

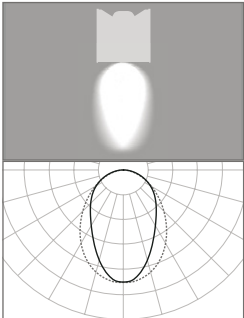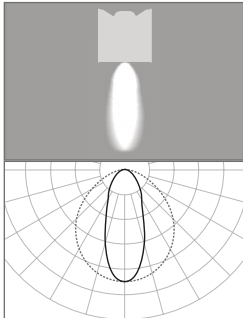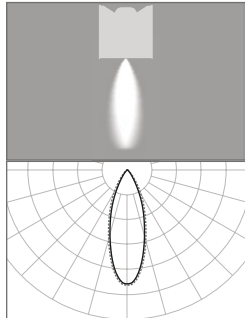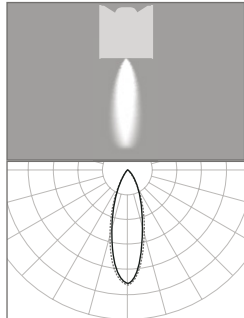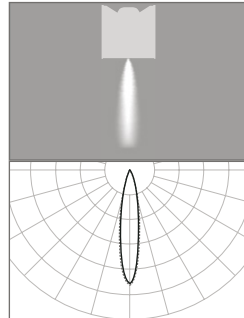## BEAM PATTERN SELECTION GUIDE

### Beam Pattern Availability

| OPTIC | BEAM PATTERN | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DLAM | DBW60 | DDA70 | DA3015 | DA3010 | DM70 | DN40 | DCO45 | DCO35 | DCO25 |
| Flush/Regressed Lens | * | * | * | * | * | * | * | | | |
| Baffle | * | * | * | * | * | * | * | | | |
| Cavity Optics (Square or Round) | | | | | | | | * | * | * |

### Direct Photometrics Static White Light

| | **DLAM** | **DBW60** | **DDA70** | **DA3015** | **DA3010** |
|---|---|---|---|---|---|
| | Lambertian | Batwing 60° | Double Asymmetric 70° | Asymmetric 30° at 15° Tilt | Asymmetric 30° at 10° Tilt |

| **DLAM** | | **DBW60** | | **DDA70** | | **DA3015** | | **DA3010** | |
|---|---|---|---|---|---|---|---|---|---|
| **Length** | 1220mm | **Length** | 1220mm | **Length** | 1220mm | **Length** | 1220mm | **Length** | 1220mm |
| **LED** | HE80 | **LED** | HE80 | **LED** | HE80 | **LED** | HE80 | **LED** | HE80 |
| **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K |
| **Lumens** | 3,000 | **Lumens** | 3,000 | **Lumens** | 3,000 | **Lumens** | 3,000 | **Lumens** | 3,000 |
| **lm/m** | 2,450 | **lm/m** | 2,470 | **lm/m** | 2,560 | **lm/m** | 2,515 | **lm/m** | 2,495 |
| **Watts** | 36 | **Watts** | 21 | **Watts** | 25 | **Watts** | 23 | **Watts** | 23 |
| **W/m** | 29.5 | **W/m** | 17.5 | **W/m** | 20.8 | **W/m** | 19.2 | **W/m** | 19.2 |
| **LPW** | 83 | **LPW** | 141 | **LPW** | 123 | **LPW** | 131 | **LPW** | 130 |

| | **DM70** | **DN40** | **DCO45** | **DCO35** | **DCO25** |
|---|---|---|---|---|---|
| | Medium 70° | Narrow 40° | Cavity Optic 45° | Cavity Optic 35° | Cavity Optic 25° |

| **DM70** | | **DN40** | | **DCO45** | | **DCO35** | | **DCO25** | |
|---|---|---|---|---|---|---|---|---|---|
| **Length** | 1220mm | **Length** | 1220mm | **Length** | 1220mm | **Length** | 1220mm | **Length** | 1220mm |
| **LED** | HE80 | **LED** | HE80 | **LED** | HE80 | **LED** | HE80 | **LED** | HE80 |
| **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K | **CRI/CCT** | 80+/3500K |
| **Lumens** | 3,000 | **Lumens** | 3,000 | **Lumens** | 3,000 | **Lumens** | 3,000 | **Lumens** | 3,000 |
| **lm/m** | 2,490 | **lm/m** | 2,520 | **lm/m** | 2,525 | **lm/m** | 2,525 | **lm/m** | 2,525 |
| **Watts** | 20 | **Watts** | 20 | **Watts** | 37 | **Watts** | 37 | **Watts** | 37 |
| **W/m** | 16.7 | **W/m** | 16.7 | **W/m** | 30.8 | **W/m** | 30.8 | **W/m** | 30.8 |
| **LPW** | 149 | **LPW** | 151 | **LPW** | 82 | **LPW** | 82 | **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.

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